



# YAKAMA FOREST PRODUCTS

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*"Respecting the Forest, Honoring the Past, Building the Future."*

*May 08, 2020*

Kelly McFadden  
Air Permits and Toxics Branch  
USEPA Region 10  
1200 Sixth Avenue, Suite 155  
Seattle, WA 98101-3188

Re: Yakama Forest Products Title V Permit Renewal Application

To: Kelly McFadden,

Please find the enclosed Title V Permit Renewal Application for Yakama Forest Products.  
We hope that you and everyone there stay safe..

Sincerely:

Steve Rigdon  
General Manager  
Yakama Forest Products

*"A Nation's Pride You Can Build On."*

**Yakama Forest Products**  
White Swan, WA

40 CFR Part 71 Operating Permit  
No. R10T5120000

## **Renewal Application**



**May 2020**  
Version 1

**Prepared by**

**Submitted to:**

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1. Part 71 Permit Application Forms
2. Fee Submittal Calculations (including emission estimates).
3. Maximum Kiln Production Tables

**Federal Operating Permit Program (40 CFR Part 71)  
CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS (CTAC)**

This form must be completed, signed by the "Responsible Official" designated for the facility or emission unit, and sent with each submission of documents (i.e., application forms, updates to applications, reports, or any information required by a part 71 permit).

**A. Responsible Official**

Name: (Last) Rigdon (First) Steve (MI) \_\_\_\_\_

Title General Manager

Street or P.O. Box PO Box 489

City White Swan State WA ZIP 98952 - \_\_\_\_\_

Telephone ( 509 ) 874 - 2901 Ext. 101 Facsimile ( 509 ) 874 - 8884

**B. Certification of Truth, Accuracy and Completeness (to be signed by the responsible official)**

I certify under penalty of law, based on information and belief formed after reasonable inquiry, the statements and information contained in these documents are true, accurate and complete.

Name (signed) \_\_\_\_\_

Name (typed) Mr. Steve Rigdon Date: 05 / 08 / 2020



## Abbreviations

ASTM	American Society for Testing and Materials
DC	dry chips
CFR	Code of Federal Regulations
CO	carbon monoxide
EPA	Environmental Protection Agency
FARR	Federal Air Rules for Reservations
GC	green chips
HAP	hazardous air pollutant as defined in 1990 Clean Air Act
HF	hog fuel
LLM	large log mill
MACT	Maximum Achievable Control Technology
MMBtu	one million British Thermal Units
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOx	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM10	PM less than 10 micron
PM25	PM less than 2.5 micron
ppmw	parts per million by weight
ppmv	parts per million by volume
PTE	Potential to Emit as defined in 1990 Clean Air Act
SD	saw dust
SH	shavings
SLM	small log mill
SOx	sulfur oxides
VOC	volatile organic compounds
YFP	Yakama Forest Products

## 1.0 Introduction

Identifying information and description of the source's processes as required under Part 71 is provided in Attachment 1 on EPA forms GIS, EUD-1, EUD-3, EMISS PTE, IE, and ICOMP. The information below supplements the information provided on the forms.

Yakama Forest Products (YFP) is a tribal enterprise wholly owned by the Confederated Tribes and Bands of the Yakama Nation. It operates two sawmills in White Swan, Washington where it produces common boards, industrial shop lumber, and dimensional lumber from timber harvested from mostly tribal lands. The two mills are separated by a public road. The Small Log Mill (SLM) is located on the east side of the road and the Large Log Mill (LLM) is located on the west side of the road. EPA has determined that YFP must treat the two mills as a single source for regulatory applicability purposes.

The largest air emission sources are four boilers that support two separate dry kiln operations, the kilns, and the mill cutting/planing activities.

The Small Log Mill boilers are approximately 25 MMBtu/hr and the Large Log Mill boilers are nameplate rated to be 33 MMBtu/hr. The current permit identifies LLM boiler size as 29.1 MMBtu/hr, which was the level to which YFP derated the boilers to reduce NSPS oil firing requirements. The permit should, however, have taken into account the fact that at around the time it was prepared, YFP stopped oil firing altogether and switched to propane fuel, which required replacing the burners such that the boilers can no longer fire liquid fuel oil. The goal of reducing boiler capacity to below 30 mmBtu/hr, therefore, was made unnecessary by the fuel switch. Installing the new gaseous fuel burners was not intended to change the thermal capacity, but doing so did end up adjusting it upwards slightly. All the boilers are fueled exclusively using liquified petroleum gas (LPG) in conformance with the ASTM D 1835 HD 5 specification.

The kilns are also a large emission source, producing VOCs and air toxics that are released from the wood during drying operations.

The emissions from the mechanical aspects of the mill (sawing and planing) are limited to particulate, VOC and methanol emissions.

Figure 1.1 shows the layout of both mills. Figures 1.2 and 1.3 show the emissions sources for the Small Log Mill and the Large Log Mill respectively.

Figures 1.4 and 1.5 present process schematics for the Small and Large Log Mills respectively.

Section 6 of this renewal application narrative lists the requested specific revisions to the existing permit.

**Figure 1.1 – Location and Layout of Large and Small Log Mills.**



**Figure 1.2 – Small Log Mill Emission Source Locations**

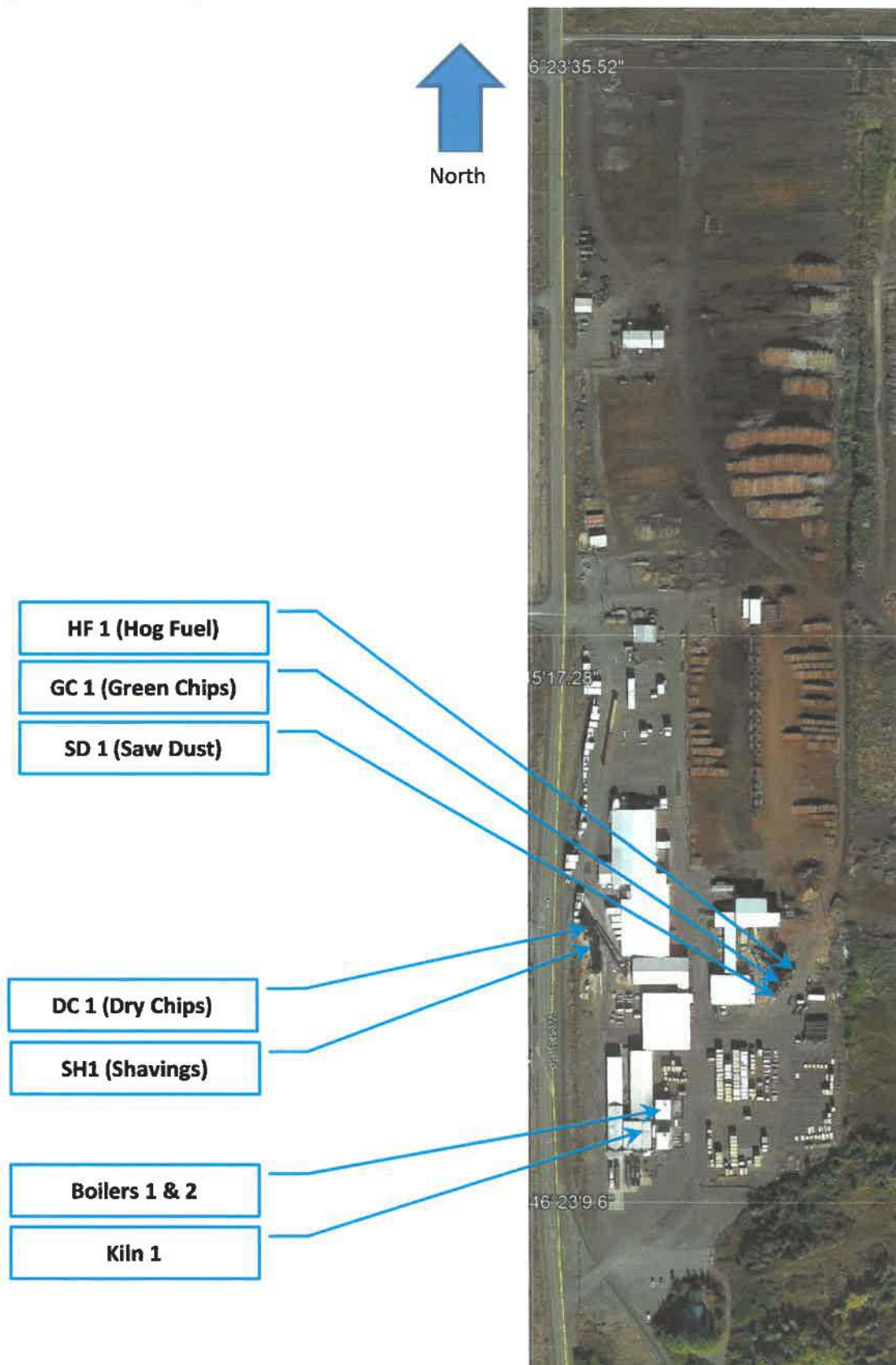
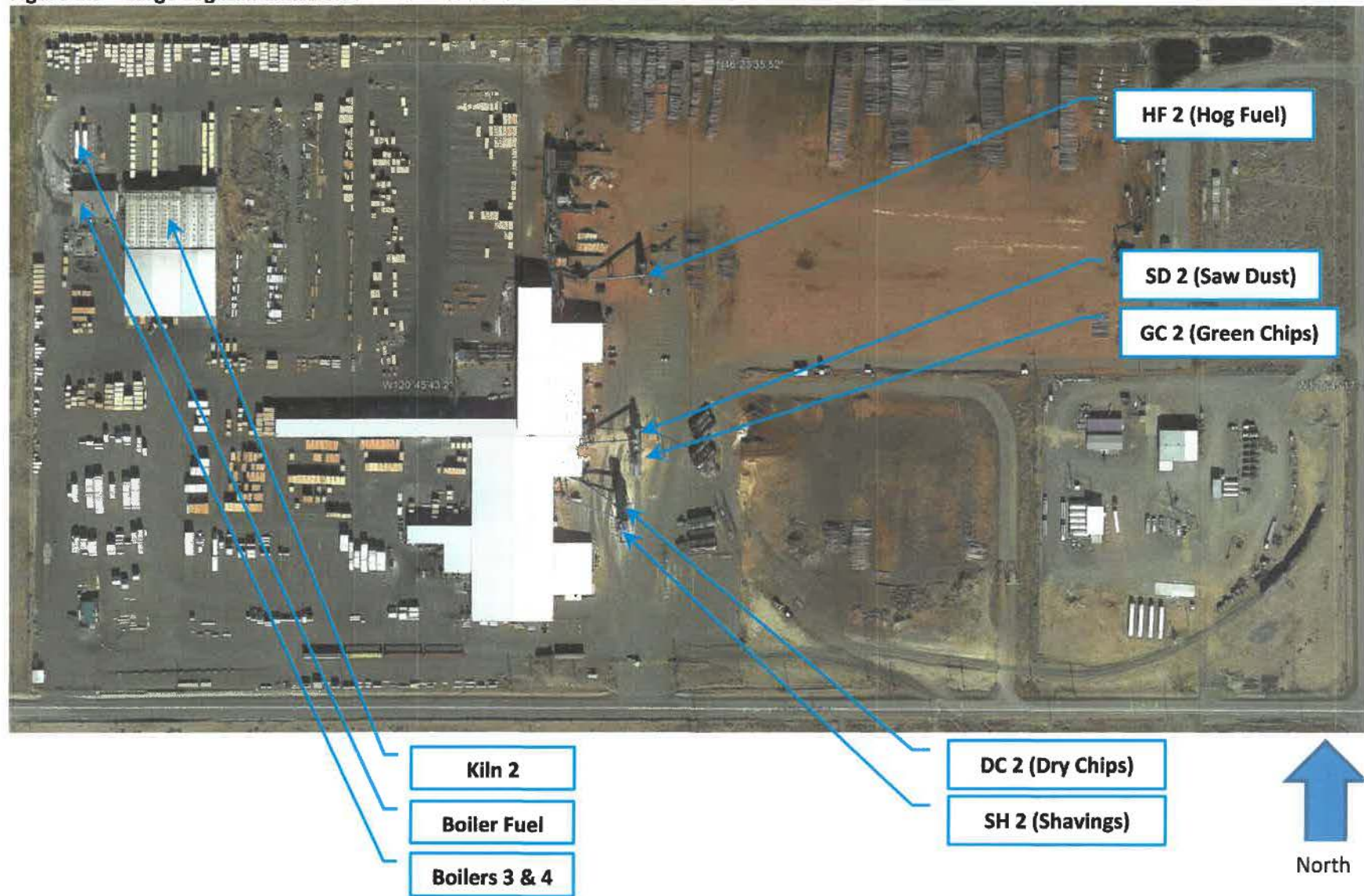
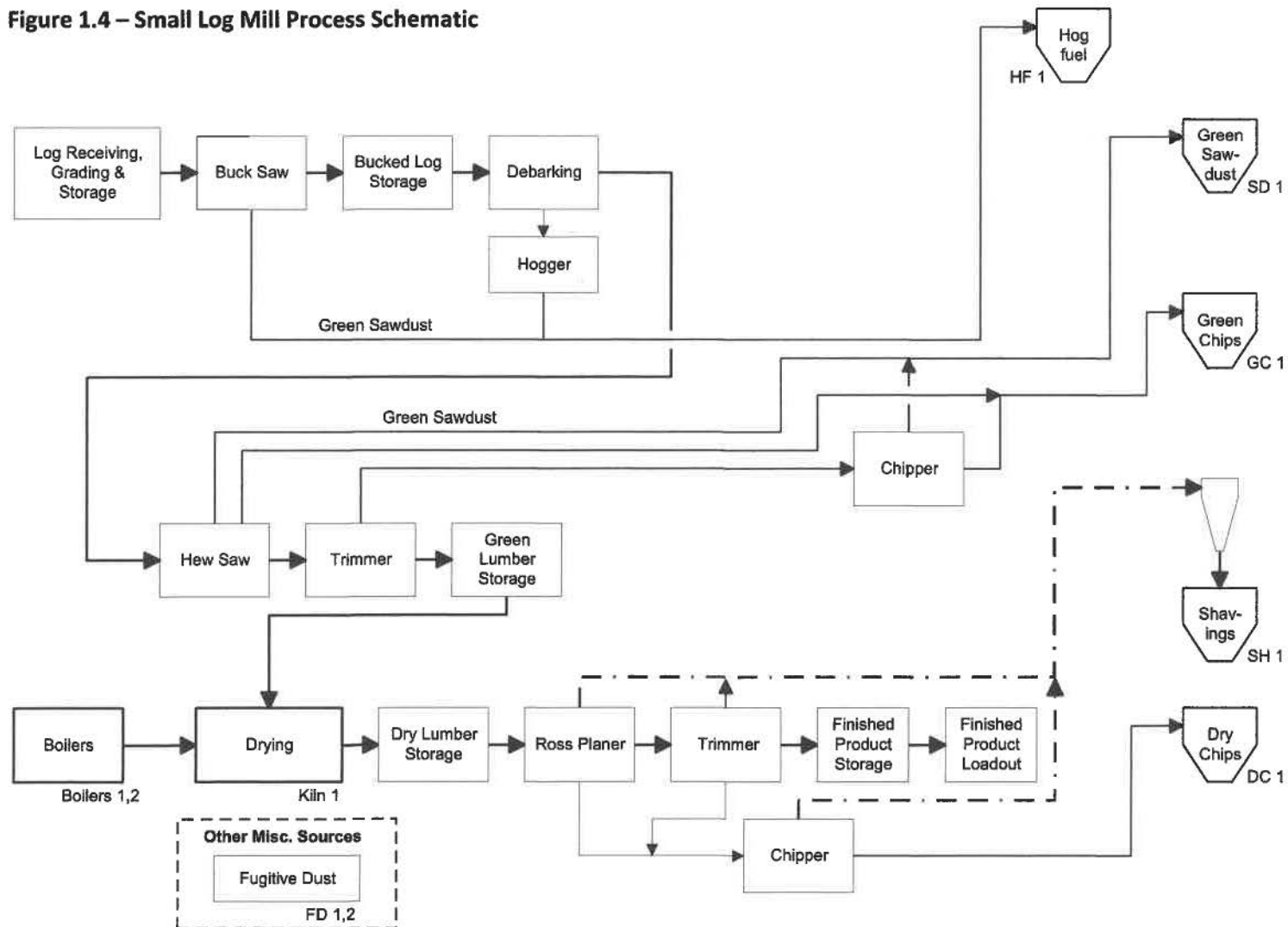




Figure 1.3 – Large Log Mill Emission Source Locations



### Figure 1.4 – Small Log Mill Process Schematic

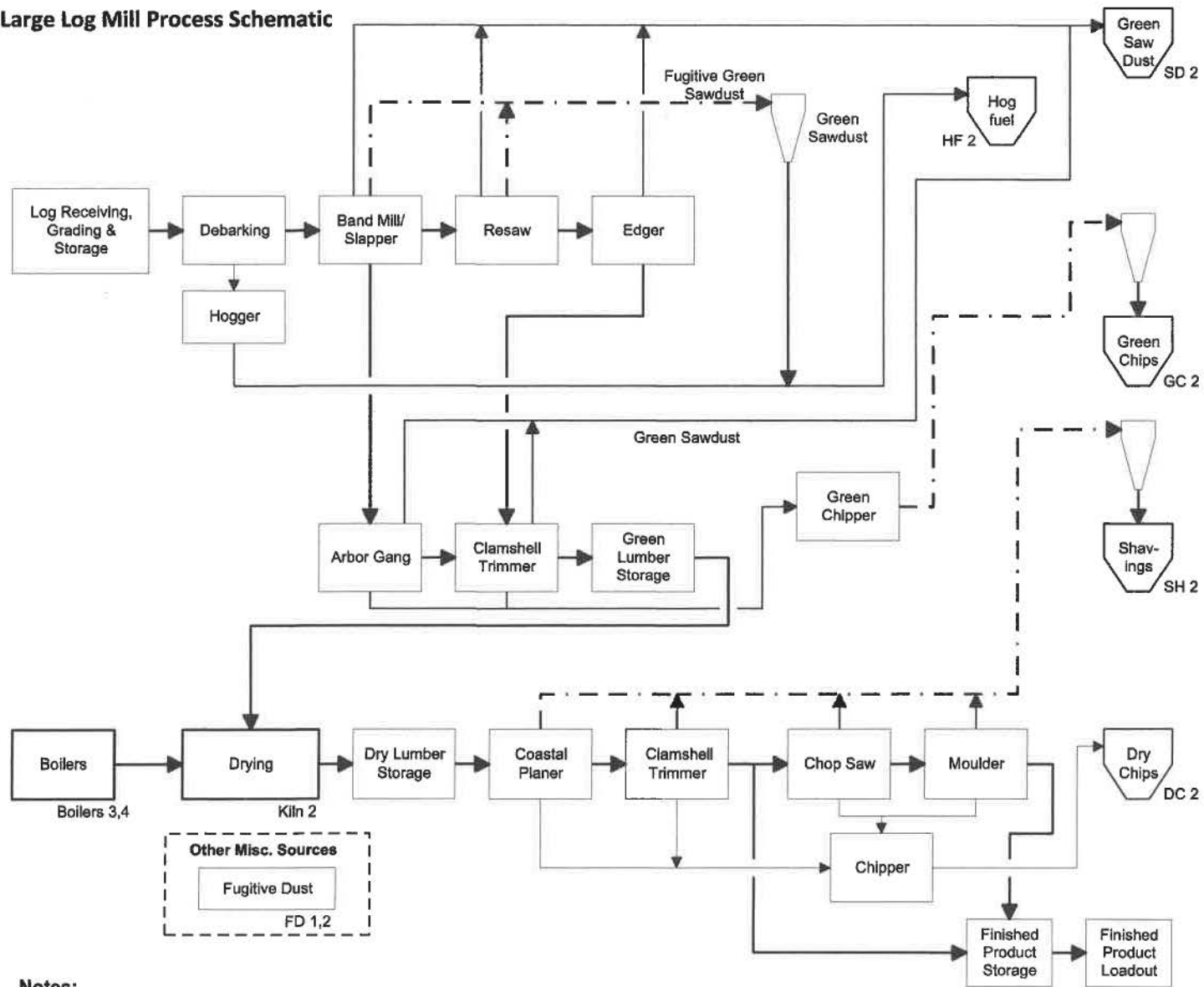


**Notes:**

1. Pneumatic conveying systems shows as — — . — — —



**Figure 1.5 – Large Log Mill Process Schematic**



**Notes:**

1. Pneumatic conveying systems shows as — — • — — •

## **2.0 Applicable Regulatory Requirements**

### **2.1 Applicable Requirements**

The list below is a summary of “applicable requirements,” as defined in 40 CFR 71.2, for YFP. Descriptions of specific applicable requirements are provided on EPA I-COMP forms in Attachment 1.

#### **FARR (40 CFR Part 49)**

Certain requirements in the Federal Air Rules for Reservations (FARR) in 40 CFR Part 49, Subpart C apply to Yakama Forest Products.

Among the main limits, FARR requires that the LPG fuel combusted be less than 400 ppmw sulfur and that the particulate concentration from the boilers, and all other particulate sources, not exceed 0.1 grain per dry standard cubic foot. All sources must have opacity of less than 20%. As noted in the introduction, the boilers are fueled exclusively with LPG meeting the ASTM HD 5 specification. The ASTM D 1835 HD 5 LPG fuel specification is a maximum of 123 ppmw (0.0123%) total sulfur.

In addition, there is a sulfur dioxide concentration standard of 500 ppmv. The use of LPG as boiler fuel provides for operating conditions far below (fuel is 123 ppmw and stack gas is estimated at 5 ppmv) these limits.

Under the FARR, Yakama Forest Products must file annual registration forms and complete a fugitive particulate emissions matter survey.

#### **Boiler NSPS (40 CFR Part 60 Subpart Dc)**

The boilers are subject to the fuel quality requirements of 40 CFR Part 60 Subpart Dc. The fuel must have a sulfur concentration of less than 0.5%. The ASTM D 1835 HD 5 specification requires a maximum of 123 ppmw (0.0123%) total sulfur.

#### **Plywood and Composite Wood Products MACT (40 CFR Part 63 Subpart DDDD)**

The subpart imposes no substantive requirements for sawmills – it requires only submission of an initial notification under 40 CFR 63.9(b)(2). YFP submitted its initial notification in December 2009. If in the future YFP demonstrates lower HAP PTE based on testing or more realistic, acceptable sawmill emission factors, or if EPA changes its “once in, always in” policy, YFP would expect to seek to revise the applicability status for Subpart DDDD.

#### **Boiler NESHAP (40 CFR Part 63 Subpart DDDDD)**

The Boiler NESHAP requires a one-time energy assessment and generally, annual boiler tune-ups. The energy assessment has been completed. The annual tune-ups are not required because the boiler combustion is controlled by an oxygen sensor. 40 CFR 63.7540(12) allows the tune-up frequency to be extended to five year intervals if an oxygen trim system is used to control the boiler burner.

#### **Federal Operating Permit Program – 40 CFR Part 71**

YFP is subject to Part 71 because EPA considers it to be a major source for HAP emissions, and because it has the potential to emit over 100 tons per year of a criteria pollutant. Table 2.1 presents actual 2019 emissions and current potential to emit (PTE).

**Table 2.1 – Calendar Year 2019 Actual Emissions and Current Potential to Emit.**

Pollutants (tpy)										
Emissions Source	SOx	NOx	CO	VOC	TP	PM10	PM25	HAP	Methanol	Data Source/Comments
<b>Actual Emissions (Calendar Year 2019)</b>										
Boiler	0.8	16.5	9.5	1.3	0.9	0.9	0.9	0.0		AP-42 Section 1.5 (HD-5 LPG)
Kiln				49.7	1.1	1.1		3.3	2.0	
Mill				10.4	12.1	10.3	6.0	0.39	0.39	
Misc. Non-fugitive Activities					6.8	3.4	1.70			
Misc. Fugitive Activities					7.1	3.5	1.76			
Fugitive Dust					20.0	20.0				
Total	0.8	16.5	9.5	61.4	48.0	39.2	10.4	3.7	2.4	
Total Point Source	0.8	16.5	9.5	61.4	20.9	15.7	8.6	3.7	2.4	
<b>Total Site Potential to emit in tons per calendar year</b>										
Boiler	3.6	72.1	41.6	5.5	3.9	3.9	3.9	0.0		AP-42 Section 1.5 (HD-5 LPG)
Kiln				198.2	5.1	5.1		50.9	43.1	Western White Pine (<200 oF) VOC
Mill				16.37	19.1	16.2	9.50	0.61	0.61	
Misc. Non-fugitive Activities					26.1	13.1	6.53			
Total Point Source	3.6	72.1	41.6	220.1	54.3	38.3	19.9	51.5	43.7	

**Notes:**

1. Boldface values are point sources.
2. All emission factors from existing Title V permit unless otherwise noted on detail worksheets.

## 2.2 Non-Applicable Requirements

Regulations not listed on I-COMP forms are considered to be not currently applicable, but several non-applicable requirements are discussed specifically below to detail the basis for current non-applicability.

### Chemical Accident Prevention Program (40 CFR Part 68)

The Chemical Accident Prevention Program requirements apply to an owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process. YFP has reviewed the lists of regulated substances and corresponding threshold quantities in 40 CFR Part 68 and has confirmed that it does not have or use at any time amounts of any listed substance over the listed threshold quantities. The only listed substance YFP uses in quantity is acetylene. YFP keeps no more than 7,000 to 8,000 pounds of acetylene in Standard Bottles spread out over the site – well below the 10,000 pound applicability threshold for acetylene.

### Compliance Assurance Monitoring (40 CFR 64.2)

CAM requirements apply to units that are subject to an emission limitation, use a control device to achieve compliance with the emission limitation, and have potential pre-control emissions over a certain amount. None of the emission units at YFP use a control device to achieve compliance with applicable emission limits. CAM requirements, therefore, do not apply.

### Tank NSPS (40 CFR Part 60 Subpart Kb)

Table 2.2 provides a summary of the fuel storage tanks on site with a nominal capacity of 10,000 gallon (38 m<sup>3</sup>) or more. Based on the information on Table 2.2, Subpart Kb is not applicable for these tanks, as they are either:

- smaller than 75m<sup>3</sup>.
- are between 75 and 151m<sup>3</sup> in size and have a vapor pressure less than 15 kPa, or
- are pressure vessels designed for more than 204.9 kPa.

**Table 2.2 – Summary of Fuel Tanks 38m<sup>3</sup> or Larger**

		Tank					
	Nominal Capacity	Length/ Height	Dia.	Volume		Vapor Pressure	
Tank Name	(gallons)	(ft)	(ft)	(ft3)	(m3)	(kPa)	Comments
Small Log Mill							
Diesel 1	12,000	32.08	8	1,613	45.7	0.15	
Large Log Mill							
Boiler Fuel 3 (LPG)	30,000	55	10	4,320	122.3	> 100	Pressure Vessel
Boiler Fuel 4 (LPG)	30,000	55	10	4,320	122.3	> 100	Pressure Vessel
Diesel 2	10,000	20.67	10	1,623	46.0	0.15	

### 3.0 Insignificant Sources

Each sawmill has a small pneumatic conveying system that discharges saw filings into a 55 gallon drum. These are considered insignificant sources due to the low air flow rate and the high density (metal filings) particulate. These systems have no visible emissions.

There are no stationary emergency equipment on site that generate air emissions.

Table 3.1 lists and inventory of all fuel storage tanks on site except boiler fuel storage. Boiler fuel storage tank data is provided in Table 2.2. All of these are considered insignificant sources (less than 2 tpy RAP and less than 1,000 pounds per year HAP).

**Table 3.1 – Inventory of All Fuel Tanks on Site (Except boiler fuel storage).**

Tank Name	Nominal Capacity (gallons)
<b>Small Log Mill</b>	
Truck diesel	12,000
Log yard diesel	5,000
Fork lift diesel	1,000
Gas	500
Kerosene	200
Heating Oil	1,000
<b>Large Log Mill</b>	
Log yard diesel	10,000
Log yard diesel	6,000

### 4.0 Emissions Calculations

This section describes the methodology used to calculate emissions from each source. Site wide emissions are provided in EPA for EMISS in Attachment 1. Detailed emissions spreadsheets are

in Attachment 2 of this application. They are presented in the same form as they would be for the annual fee calculation requirement.

### ***Boilers***

The boiler emissions calculations are based on the amount of fuel that each boiler uses per year. The boilers are fueled exclusively with liquified petroleum gas (LPG) meeting the ASTM D 1835 Special Duty (HD 5) specification. Fuel is only metered as to which mill it goes to, not which boiler is goes to, so the boilers at each mill are assumed to use a prorated amount of fuel based on operational hours. The sulfur emissions are based on the HD 5 specification of 123 ppmw maximum.

All emission factors used for the boilers are AP-42 for the HD 5 fuel specification. They are shown on the detail calculation sheets in Attachment 2.

Boiler potential to emit in Table 7b, Attachment 2, is based on continuous operation (8,760 hours per year) The same emission factors are used as for actual emissions.

### ***Kilns***

This application uses the kiln emission factors that were provided by USEPA Region 10 from Oregon State University. YFP is concerned about the data quality of the OSU factors, but has used them for this calculation at EPA's request. The concerns about these factors include:

1. The major emitting species at YFP (Grand Fir) was not tested, White Fir data was used.
2. The testing was at a laboratory scale.
3. The emitting compounds found are known to be very difficult to analyze due to known interferences.

The kiln potential to emit calculation is complicated because there are three wood species, pine, grand fir, and douglas fir, each with their own emission factor and production rate. The mill has a permit limitation to never dry pine over 200 °F. The maximum production rate to calculate PTE for the kilns, and the subsequent by-product production, were calculated based on process models. A summary of the modeling results are provided in Attachment 3.

### ***Wood By-Product Handling and Storage***

The kiln is the rate limiting step for the saw mill. The kiln is designed to operate continuously, 24/7 with the exception of a two week shutdown that normally occurs in late December. The saw mill operates between 40 and 80 hours per week to support the kiln. The length of time the sawmill operates is a function of species. Fir can be dried faster than pine, so heavy fir production requires the sawing/planning operations to operate longer than heavy pine production. There is no market for un-dried lumber and lumber must be dried very soon after the initial cutting. Therefore, all production must pass expediently through the kiln.

Each mill handles wood by-products for resale. These products are hog fuel, sawdust, green chips, dry chips, and shavings. For the actual emissions calculations, the quantities of by-products are taken from calendar year 2019 production records (bone dry tons of by-product per thousands of board feet production).



The emission factors for planing and material handling are from the current Part 71 permit. The maximum by-product production calculation used in the emissions assessment is based on the maximum mill production. The maximum capacity is not based on the material handling equipment capacity.

A portion of the sawdust and all green chips are pneumatically conveyed at the Large Log Mill from the source to the load out bins. Shavings are pneumatically conveyed at both mills. Emissions were calculated for planing, pneumatic conveying, bin loading, and truck loading.

### ***Fugitive Dust***

The fugitive dust calculations (Attachment 2) are from AP-42 and are based on the yard equipment metrics and watering patterns. They are likely a significant overestimate, but no better data has been located yet. A detailed yard study calculated emissions based on a production level of 135,988 mbf/yr. Emissions were then linearly scaled on this number based on actual or PTE production values.

## **4.0 Annual Fees**

YFP has submitted annual fee forms and paid fees to EPA since 2003. For Calendar year 2019 a total of \$6,349.58 was paid.

## **5.0 Compliance History**

The Small Log Mill started operating in August 1998; the Large Log Mill started operating in June 2002. Since 2000, YFP and the Tribe have had periodic permitting and compliance discussions with EPA Region 10. The main areas of discussion have been requirements of NSPS Subpart Dc and Title V/Part 71 permitting.

In August 2000, EPA issued a letter to YFP regarding NSPS requirements for the Small Log Mill boiler. The issue was discussed at a September 7, 2001 meeting between YFP and EPA. In July 2003, YFP submitted to EPA a Title V permit application for the Large Log Mill and fees of \$13,478. YFP has paid fees to EPA for each year since. On September 18, 2003 the agency determined that the application was incomplete. On October 6, 2003, EPA issued a notice of noncompliance to YFP, listing violations of Title V Part 71 requirements and provisions in NSPS Subpart Dc and Subpart A. YFP responded on November 26, 2003, seeking waiver of NSPS initial source test requirements, providing fuel records, providing construction/start-up dates, and proposing an alternative approach to recording amounts of fuel combusted. YFP provided a second response on January 1, 2004, addressing the Part 71 allegations and requesting alternate forms of compliance determination for certain NSPS requirements. On January 27, 2004, EPA issued a follow-up letter agreeing to meet with YFP to discuss the issues.

A meeting between YFP and EPA was held on February 6, 2004. At the meeting, a former YFP Business Manager became concerned that YFP did not have proper authority from the Tribal Council to make commitments to the federal government because there had not yet been any government-to-government consultation about EPA authority or jurisdiction on the Yakama Reservation. He therefore asked that the meeting cease until YFP could get formal authority from the Tribal Council.



On June 2, 2004, the Yakama Nation Tribal Council requested a government-to-government consultation with EPA regarding implementation of the federal Clean Air Act Title V air operating permit program. EPA Region 10 responded on July 15, 2004 offering to meet. At some point during this time, however, the Tribal Council voted to constrain YFP's ability to work with EPA on the outstanding issues. An April 8, 2005 letter from EPA to the Tribal Council Chairman asked the Council to authorize YFP to work with EPA to address the cited violations. After a meeting between EPA and representatives from YFP and the Tribe in Toppenish on May 4, 2005, EPA issued a May 31, 2005 letter outlining a plan for compliance with Title V and NSPS requirements.

In June (and an October supplement) 2006, YFP submitted an alternative monitoring request to EPA seeking approval to rely on fuel supplier certifications and other procedures to monitor compliance with the fuel sulfur content limit for the two Large Log Mill boilers, in place of NSPS Subpart Dc on-site sampling and analysis requirements. EPA responded in a March 5, 2007 letter identifying additional information YFP would provide to support the request. A September 2007 letter from EPA to YFP follows up on an EPA air inspection of the plant. The letter notes that EPA is prepared to continue to work cooperatively with YFP and the Yakama Nation to achieve compliance and seeks agreement on a compliance strategy and timeline; the letter provides a List of Compliance Issues of Concern.

In a meeting on November 13, 2007, YFP discussed with EPA derating the Large Log Mill boilers (Boilers 3 & 4) to below 30 MMBtu/hr. Boilers rated at 30 MMBtu/hr are subject to the Subpart Dc fuel sampling and opacity monitoring requirements. YFP undertook to derate the boilers to below this threshold so that these provisions would no longer apply. In an April 10, 2008 letter to EPA, YFP stated that it was going forward with the derate. YFP purchased new burners for the boilers, then conducted testing in February 2009 to demonstrate that the boilers were derated to below 30 MMBtu/hr (the boilers were rated at 29.1 MMBtu/hr) and submitted the results to EPA. In a June 29, 2009 letter to YFP, EPA confirmed its determination that the boilers were successfully derated such that the maximum heat input capacity of each boiler is now less than 30 million Btu per hour. As noted above in the Introduction, these requirements no longer apply because YFP no longer has the capacity to fire fuel oil in the LLM boilers.

As a result of the derate, Boilers 3 and 4 are no longer subject to the Subpart Dc fuel sampling and opacity monitoring requirements. During time that Boilers 3 & 4 were rated over 30 MMBtu/hr, however, YFP did not meet the requirements in 40 CFR 60.44c(g) & 60.46c(d)(2) to sample fuel tank oil after each new shipment was received, although it did seek approval of alternative monitoring based on fuel supplier certifications. Similarly, during the time Boilers 3 & 4 were rated over 30 MMBtu/hr, the plant did not meet the requirement in 40 CFR 60.47c(a) and 60.43c(c) to install and operate a COMS to monitor compliance with 20% opacity limit. Finally, during this time the plant also did not meet the requirement in 40 CFR 60.48c(g)(1) to record and maintain records of amounts of fuel combusted each day. As noted, these requirements no longer apply.

In addition, YFP did not meet the deadlines for the requirement in 40 CFR 60.8(a) to conduct an initial performance test within 180 days after initial startup and report the results, nor did it notify EPA of date of construction, anticipated startup and actual startup (40 CFR 60.48c(a) & 60.7) in a timely fashion. To address the initial performance test requirements, YFP provided fuel supplier certifications to EPA in a December 16, 2009 submission. The certifications show that the fuel oil initially fired in the boilers contained less than 0.5 weight percent sulfur. YFP

provided Method 9 observation results to EPA in February 2009. With regard to dates of construction and startup, as of May 31, 2005, EPA confirmed that, though untimely, it had the necessary information.

As noted in Section 2.1 above, the Plywood and Composite Wood Products MACT (40 CFR Part 63 Subpart DDDD) imposes no substantive requirements for YFP, but it does require submission of an initial notification under 40 CFR 63.9(b). YFP provided the required initial notification information to EPA in December 2009, after the deadline.

In April 2009 the Tribal Government authorized YFP to seek a Title V/Part 71 air operating permit from EPA, resulting in a permit application.

The mill was issued a Title V/Part 71 permit on September 29, 2015. The mill has been in compliance since then. This permit renewal application will be submitted after the March 29, 2020 deadline.

## **6.0 Requested Permit Revisions**

The following are the requested changes to the existing permit:

### ***Permit***

**Page 4 of 31** – In the Emission Unit Description for the LLM Boilers, change the heat input capacity to 33 MMBtu/hr and the approximate maximum steam production to 26,800 lbs/hr. The large log mill boilers are nameplate rated for a maximum heat input of 33 MMBtu/hr with a calculated coincident steam flow of 26,400 lbs/hr.

**Page 24 and 25 of 31** - YFP requests that EPA revise NESHAP boiler tune-up frequency in permit subsection 5.4.1 (on page 25 of 31, in Section 5, Unit-Specific Requirements – Boilers #1-4, subsection 5.4 on NESHAP Subpart DDDDD Tune-Ups). YFP uses continuous oxygen trim systems on each boiler to maintain optimum air to fuel ratios. As currently written, subsection 5.4.1 requires annual tune-ups, citing 40 CFR §63.7515(d) and Item 3 in Table 3 to Subpart DDDDD. The former refers to conducting “an annual, biennial, or 5-year performance tune-up according to § 63.7540(a)(10), (11), or (12), respectively,” while the latter applies to boilers without an oxygen trim system. For boilers with oxygen monitoring, § 63.7540(a)(12) applies. It states that if a boiler has a continuous oxygen trim system that maintains an optimum air to fuel ratio, the tune-up must be conducted every five years as specified in paragraphs (a)(10)(i) through (vi) of the section, provided the oxygen level is set no lower than the oxygen concentration measured during the most recent tune-up. 40 CFR 63.7540(a)(12). The applicable item in Table 3, therefore, is Item 1, for boilers with an oxygen trim system. While YFP will likely continue to conduct annual tune-ups to ensure boiler efficiency, the permit should be accurate in requiring the five year frequency rather than annual.

### ***Statement of Basis***

**Page 4 of 28** – Same change as requested above for the Emission Unit Description for the LLM Boilers (permit page 4 of 31).

**Page 5 of 28** – Revise the last full paragraph as follows. In the second sentence, delete the phrase “their current capacities” and replace with “prior to 2014.” In the fourth sentence, add the following phrase after the phrase “were converted to burn propane in 2014”: “, obviating the need for the derate, which was performed solely to reduce used motor oil fuel regulatory requirements.”

**Page 7 of 28** - The emissions estimates discussion should be revised to reflect that the LLM boilers are nameplate rated for a maximum heat input of 33 MMBtu/hr with a coincident steam flow of 26,400 lbs/hr and that YFP uses LPG meeting the ASTM D 1835 HD-5 specification. This specification calls for a maximum sulfur content of 123 ppmw, which translates to a gas concentration of 10 grains per 100 ft<sup>3</sup> of gas.

**Page 24 of 28** – In the paragraph on “Permit Conditions 4.21 through 4.26,” delete the phrase “only burn propane and have capacities between 10 and 30 MMBtu/hr.” The NESHAP General Provisions apply because EPA has determined that the boilers are subject to Subpart DDDDD, period.

The example calculation for sulfur dioxide should be revised to reflect the boiler rating of 33 MMBtu/hr and that YFP exclusively fuels the boilers with LPG meeting the ASTM D 1835 HD-5 specification. This specification calls for a maximum sulfur content of 123 ppmw., which translates to a gas concentration of 10 grains per 100 ft<sup>3</sup> of gas.

**Page 25 of 28** – The example calculation for PM should be revised to reflect the boiler rating of 33 MMBtu/hr.

The entry for "Permit Condition 5.4" should be revised to state that the tune-up is required once every five years because the YFP boilers are equipped with oxygen trim systems.

## ***Appendix A***

**Page A-4 of A-14** - The calculations should reflect the boiler rating of 33 MMBtu/hr. Note that YFP exclusively fuels the boilers with LPG meeting the ASTM D 1835 HD-5 specification. This specification calls for a maximum sulfur content of 123 ppmw. This translates to a gas concentration of 10 grains per 100 ft<sup>3</sup> of gas.

**Page A-5 of A-14** – Note that Ponderosa dominates the pine species cut in the past and will likely dominate the pine species cut for the future. There currently is no feasible scenario where Western White Pine would be the dominate species cut.

**Attachment 1**  
**EPA Forms**



Federal Operating Permit Program (40 CFR Part 71)  
**GENERAL INFORMATION AND SUMMARY (GIS)**

**A. Mailing Address and Contact Information**

Facility name *Yakama Forest Products*  
Mailing address: Street or P.O. Box *PO Box 489*  
City *White Swan* State *WA* ZIP *98952* -  
Contact person: *Mr. Steve Rigdon* Title *General Manager*  
Telephone ( *509* ) *874* - *2901* Ext. *101*  
Facsimile ( *509* ) *874* - *8884*

**B. Facility Location**

Temporary source? \_\_\_ Yes *X* No Plant site location *251 Medicine Valley Road*  
*X*  
City *White Swan* State *WA* County *Yakima* EPA Region *X*  
Is the facility located within:  
Indian lands? *X* YES \_\_\_ NO An offshore source in federal waters? \_\_\_ YES *X* NO  
Non-attainment area? \_\_\_ YES *X* NO If yes, for what air pollutants? \_\_\_\_\_  
Within 50 miles of affected State? *X* YES \_\_\_ NO If yes, What State(s)? *Oregon*

**C. Owner**

Name *Yakama Indian Nation* Street/P.O. Box *PO Box 151*  
City *Toppenish* State *WA* ZIP *98948* -  
Telephone ( *509* ) *865* - *5121* Ext \_\_\_\_\_

**D. Operator**

Name *(Same as above)* Street/P.O. Box \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_ -  
Telephone ( \_\_\_\_\_ ) \_\_\_\_\_ - \_\_\_\_\_ Ext \_\_\_\_\_

**E. Application Type**

Mark only one permit application type and answer the supplementary question appropriate for the type marked.

☐ Initial Permit ☒ Renewal ☐ Significant Mod ☐ Minor Permit Mod(MPM)

☐ Group Processing, MPM ☐ Administrative Amendment

For initial permits, when did operations commence? \_\_\_\_ / \_\_\_\_ / \_\_\_\_

For permit renewal, what is the expiration date of current permit? 9 / 19 / 2020

**F. Applicable Requirement Summary**

Mark the types of applicable requirements that apply:

☐ SIP ☐ FIP/TIP ☐ PSD ☐ Non-attainment NSR

☐ Minor source NSR ☒ Section 111 ☐ Phase I acid rain ☐ Phase II acid rain

☐ Stratospheric ozone ☐ OCS regulations ☒ NESHAP ☒ Sec. 112(d) MACT

☐ Sec. 112(g) MACT ☐ Early reduction of HAP ☐ Sec 112(j) MACT ☐ RMP [Sec.112(r)]

☐ Section 129 ☐ NAAQS, increments or visibility but for temporary sources (This is rare)

Is the source subject to the Deepwater Port Act? ☐ YES ☒ NO

Has a risk management plan been registered? ☐ YES ☒ NO Agency \_\_\_\_\_

Phase II acid rain application submitted? ☐ YES ☒ NO If YES, Permitting Authority \_\_\_\_\_

**G. Source-Wide PTE Restrictions and Generic Applicable Requirements**

Cite and describe any emissions-limiting requirements and/or facility-wide "generic" applicable requirements.

***Federal Operating Permit Program - 40 CFR Part 71***

***FARR -Total Particulate in Stacks, Visible Emissions, Sulfur, Open Burning, Fugitive Particulate - 40 CFR Part 49***

***NSPS for Boilers - Sulfur in Fuel, Work Practice, Record Keeping - 40 CFR Part 60 Subpart Dc***

***Boiler NESHAP Subpart DDDDD***

***Plywood and Composite Wood Products MACT - 40 CFR Part 63 Subpart DDDD***



**H. Process Description**

List processes, products, and SIC codes for the facility.

Process	Products	SIC
<b><i>Sawmill</i></b>	<b><i>Lumber, wood by-products</i></b>	<b><i>2421</i></b>

**I. Emission Unit Identification**

Assign an emissions unit ID and describe each emissions unit at the facility. Control equipment and/or alternative operating scenarios associated with emissions units should be listed on a separate line. Applicants may exclude from this list any insignificant emissions units or activities.

Emissions Unit ID	Description of Unit
<b><i>Boilers 1, 2</i></b>	<b><i>Small log boilers</i></b>
<b><i>Boilers 3, 4</i></b>	<b><i>Large log Boilers</i></b>
<b><i>Kiln 1, 2</i></b>	<b><i>Small log and large log kiln respectively</i></b>
<b><i>HF 1, 2</i></b>	<b><i>Small log and large log hog fuel handling respectively</i></b>
<b><i>SD 1, 2</i></b>	<b><i>Small log and large log sawdust handling respectively</i></b>
<b><i>GC 1, 2</i></b>	<b><i>Small log and large log green chip handling respectively</i></b>
<b><i>DC 1, 2</i></b>	<b><i>Small log and large log dry chip handling respectively</i></b>
<b><i>SH 1, 2</i></b>	<b><i>Small log and large log shavings handling respectively</i></b>
<b><i>FD 1, 2</i></b>	<b><i>Fugitive dust emissions from unpaved and paved roads respectively</i></b>

**J. Facility Emissions Summary**

Enter potential to emit (PTE) for the facility as a whole for each regulated air pollutant listed below. Enter the name of the single HAP emitted in the greatest amount and its PTE. For all pollutants, stipulations to major source status may be indicated by entering "major" in the space for PTE. Indicate the total actual emissions for fee purposes for the facility in the space provided. Applications for permit modifications need not include actual emissions information.

NOx 72.1 tons/yr    VOC 220.1 tons/yr    SO2 3.6 tons/yr  
PM-10 38.3 tons/yr    CO 41.6 tons/yr    Lead 0 tons/yr  
Total HAP 51.5 tons/yr  
Single HAP with greatest amount Methanol PTE 43.7 tons/yr  
Total of regulated pollutants (for fee calculation), Sec. F, line 5 of form FEE 118 tons/yr

**K. Existing Federally-Enforceable Permits**

Permit number(s) R10T5120000 Permit type Part 71 Permitting authority USEPA  
Permit number(s) \_\_\_\_\_ Permit type \_\_\_\_\_ Permitting authority \_\_\_\_\_

**L. Emission Unit(s) Covered by General Permits**

Emission unit(s) subject to general permit \_\_\_\_\_  
Check one:    ☐ Application made    ☐ Coverage granted  
General permit identifier \_\_\_\_\_ Expiration Date \_\_\_\_/\_\_\_\_/\_\_\_\_

**M. Cross-referenced Information**

Does this application cross-reference information?    ☐ YES    ☒ NO    (If yes, see instructions)

*INSTRUCTIONS FOLLOW*

Federal Operating Permit Program (40 CFR Part 71)  
**EMISSION UNIT DESCRIPTION FOR FUEL COMBUSTION SOURCES (EUD-1)**

**A. General Information**

Emissions unit ID Boiler 1 Description Small Log Mill Process Boiler  
SIC Code (4-digit) NA SCC Code 10201302

**B. Emissions Unit Description**

Primary use Steam generation to operate dry kilns Temporary Source ☐ Yes ☒ No

Manufacturer Superior Boiler Model No. 6-5-3000

Serial Number 13796 Installation Date 8 / 1 / 1998

Boiler Type: ☒ Industrial boiler ☐ Process burner ☐ Electric utility boiler

Other (describe) \_\_\_\_\_

Boiler horsepower rating 800 Boiler steam flow (lb/hr) 20,700

Type of Fuel-Burning Equipment (coal burning only):

☐ Hand fired ☐ Spreader stoker ☐ Underfeed stoker ☐ Overfeed stoker

☐ Traveling grate ☐ Shaking grate ☐ Pulverized, wet bed ☐ Pulverized, dry bed

Actual Heat Input \_\_\_\_\_ MM BTU/hr Max. Design Heat Input 24.92 MM BTU/hr

**C. Fuel Data**Primary fuel type(s) LPG (HD-5) Standby fuel type(s) \_\_\_\_\_

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
<i>LPG (ASTM D 1835 HD-5)</i>	<i>0.0123%</i>	<i>0%</i>	<i>21,580 Btu/lb</i>

**D. Fuel Usage Rates**

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
<i>LPG (ASTM D 1835 HD-5)</i>	<i>Not operated last year</i>	<i>1,155 lbs/hr</i>	<i>Not operated last year</i>

**E. Associated Air Pollution Control Equipment**

Emissions unit ID None Device type \_\_\_\_\_

Air pollutant(s) Controlled \_\_\_\_\_ Manufacturer \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Installation date \_\_\_\_/\_\_\_\_/\_\_\_\_ Control efficiency (%) \_\_\_\_\_

Efficiency estimation method \_\_\_\_\_

**F. Ambient Impact Assessment***Not Applicable*

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) \_\_\_\_\_ Inside stack diameter (ft) \_\_\_\_\_

Stack temp (°F) \_\_\_\_\_ Design stack flow rate (ACFM) \_\_\_\_\_

Actual stack flow rate (ACFM) \_\_\_\_\_ Velocity (ft/sec) \_\_\_\_\_



Federal Operating Permit Program (40 CFR Part 71)  
**EMISSION UNIT DESCRIPTION FOR FUEL COMBUSTION SOURCES (EUD-1)**

**A. General Information**

Emissions unit ID Boiler 2 Description Small Log Mill Process Boiler  
SIC Code (4-digit) NA SCC Code 10201302

**B. Emissions Unit Description**

Primary use Steam generation to operate dry kilns Temporary Source ☐ Yes ☒ No

Manufacturer Superior Boiler Model No. 7-4-2500

Serial Number 14159 Installation Date 8 / 1 / 1998

Boiler Type: ☒ Industrial boiler ☐ Process burner ☐ Electric utility boiler

Other (describe) \_\_\_\_\_

Boiler horsepower rating 800 Boiler steam flow (lb/hr) 21,562

Type of Fuel-Burning Equipment (coal burning only):

☐ Hand fired ☐ Spreader stoker ☐ Underfeed stoker ☐ Overfeed stoker

☐ Traveling grate ☐ Shaking grate ☐ Pulverized, wet bed ☐ Pulverized, dry bed

Actual Heat Input \_\_\_\_\_ MM BTU/hr Max. Design Heat Input 24.92 MM BTU/hr



**C. Fuel Data**

Primary fuel type(s) LPG (HD-5) Standby fuel type(s) \_\_\_\_\_

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
<i>LPG (ASTM D 1835 HD-5)</i>	<i>0.0123%</i>	<i>0%</i>	<i>21,580 Btu/lb</i>

**D. Fuel Usage Rates**

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
<i>LPG (ASTM D 1835 HD-5)</i>	<i>Not operated last year</i>	<i>1,155 lbs/hr</i>	<i>Not operated last year</i>

**E. Associated Air Pollution Control Equipment**

Emissions unit ID None Device type \_\_\_\_\_

Air pollutant(s) Controlled \_\_\_\_\_ Manufacturer \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Installation date \_\_\_\_/\_\_\_\_/\_\_\_\_ Control efficiency (%) \_\_\_\_\_

Efficiency estimation method \_\_\_\_\_

**F. Ambient Impact Assessment**

*Not Applicable*

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) \_\_\_\_\_ Inside stack diameter (ft) \_\_\_\_\_

Stack temp (°F) \_\_\_\_\_ Design stack flow rate (ACFM) \_\_\_\_\_

Actual stack flow rate (ACFM) \_\_\_\_\_ Velocity (ft/sec) \_\_\_\_\_



Federal Operating Permit Program (40 CFR Part 71)  
**EMISSION UNIT DESCRIPTION FOR FUEL COMBUSTION SOURCES (EUD-1)**

**A. General Information**

Emissions unit ID Boilers 3, 4 Description Large Log Mill Process Boiler  
SIC Code (4-digit) NA SCC Code 10201302

**B. Emissions Unit Description**

Primary use Steam generation to operate dry kilns Temporary Source ☐ Yes ☒ No

Manufacturer Superior Boiler Model No. 6-5-5000

Serial Number #3 14159 / #4 14922 Installation Date 4 / 1 / 2001

Boiler Type: ☒ Industrial boiler ☐ Process burner ☐ Electric utility boiler

Other (describe) \_\_\_\_\_

Boiler horsepower rating 1000 Boiler steam flow (lb/hr) 26,400 (estimated)

Type of Fuel-Burning Equipment (coal burning only):

☐ Hand fired ☐ Spreader stoker ☐ Underfeed stoker ☐ Overfeed stoker

☐ Traveling grate ☐ Shaking grate ☐ Pulverized, wet bed ☐ Pulverized, dry bed

Actual Heat Input 13.1 MM BTU/hr Max. Design Heat Input 33 MM BTU/hr

**C. Fuel Data**

Primary fuel type(s) LPG (HD-5) Standby fuel type(s) \_\_\_\_\_

Describe each fuel you expected to use during the term of the permit.

Fuel Type	Max. Sulfur Content (%)	Max. Ash Content (%)	BTU Value (cf, gal., or lb.)
<i>LPG (ASTM D 1835 HD-5)</i>	<i>0.0123%</i>	<i>0%</i>	<i>21,580 Btu/lb</i>

**D. Fuel Usage Rates**

Fuel Type	Annual Actual Usage	Maximum Usage	
		Hourly	Annual
<i>LPG (ASTM D 1835 HD-5)</i>	<i>1,272,000 gal/yr</i>	<i>361 gal/hr</i>	<i>3,159,000 gal/yr</i>

**E. Associated Air Pollution Control Equipment**

Emissions unit ID None Device type \_\_\_\_\_

Air pollutant(s) Controlled \_\_\_\_\_ Manufacturer \_\_\_\_\_

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Installation date \_\_\_\_/\_\_\_\_/\_\_\_\_ Control efficiency (%) \_\_\_\_\_

Efficiency estimation method \_\_\_\_\_

**F. Ambient Impact Assessment** *Not Applicable*

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (this is not common).

Stack height (ft) \_\_\_\_\_ Inside stack diameter (ft) \_\_\_\_\_

Stack temp (°F) \_\_\_\_\_ Design stack flow rate (ACFM) \_\_\_\_\_

Actual stack flow rate (ACFM) \_\_\_\_\_ Velocity (ft/sec) \_\_\_\_\_



Federal Operating Permit Program (40 CFR Part 71)  
**EMISSION UNIT DESCRIPTION FOR PROCESS SOURCES (EUD-3)**

**A. General Information**

Emissions unit ID Kiln 1, 2 Description Lumber Drying Kiln  
SIC Code (4-digit) \_\_\_\_\_ SCC Code \_\_\_\_\_

**B. Emissions Unit Description**

Primary use or equipment type Steam Operated Drying Kiln  
Manufacturer COE Model No. Unknown  
Serial No. Unknown Installation date #1 August 1998  
#2 April 2001  
Raw materials Green Wood  
Finished products Dry Wood  
Temporary source: ☒ No ☐ Yes

**C. Activity or Production Rates**

Activity or Production Rate	Amount/Hour	Amount/Year
Actual Rate	<i>See attached calculations</i>	<i>See attached calculations</i>
Maximum rate	<i>See attached calculations</i>	<i>See attached calculations</i>

**D. Associated Air Pollution Control Equipment**

*No air pollution control equipment*

Emissions unit ID \_\_\_\_\_ Device Type \_\_\_\_\_  
Manufacturer \_\_\_\_\_ Model No. \_\_\_\_\_  
Serial No. \_\_\_\_\_ Installation date \_\_\_\_/\_\_\_\_/\_\_\_\_  
Control efficiency (%) \_\_\_\_\_ Capture efficiency (%) \_\_\_\_\_  
Air pollutant(s) controlled \_\_\_\_\_ Efficiency estimation method \_\_\_\_\_



**E. Ambient Impact Assessment** *Not Applicable*

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (This is not common)).

Stack height (ft) \_\_\_\_\_ Inside stack diameter (ft) \_\_\_\_\_

Stack temp (F) \_\_\_\_\_ Design stack flow rate (ACFM) \_\_\_\_\_

Actual stack flow rate (ACFM) \_\_\_\_\_ Velocity (ft/sec) \_\_\_\_\_

### INSTRUCTIONS FOR EUD-3 EMISSIONS UNIT DESCRIPTION FOR PROCESS SOURCES

This form is designed to describe emissions units for processes for which forms EUD-1 or EUD-2 are not appropriate. For example, sources such as rock crushers and asphalt batch plants. This form will help you to collect and organize technical information, including operational characteristics, applicable requirements, compliance terms, and emissions for each emissions unit.

**Section A** - The emissions unit ID should be consistent with the one used in section I of form **GIS**. Enter the four-digit SIC code for the unit, which may be different from that used for the facility as a whole. In addition, complete the Source Classification Code (SCC), if known or available, but this is not mandatory.

**Section B** - There may be other information that the permitting authority will need to know that is not specifically requested on the forms and that should be included on attachments. Such information would include information needed to adequately identify the emissions unit and to determine its applicable requirements.

**Section C** - The amount of raw materials that are processed and/or the number of activities performed are values that are typically multiplied by emissions factors to calculate PTE and actual emissions.

**Section D** - Identify and describe any associated air pollution control device. Attach copies of correspondence from the vendor documenting these values, if available, or indicate how these values were otherwise determined (e.g., AP-42).

**Section E** - Complete this section only if ambient impact assessment is an applicable requirement or the facility is a temporary source. This is not common.

Federal Operating Permit Program (40 CFR Part 71)  
**EMISSION UNIT DESCRIPTION FOR PROCESS SOURCES (EUD-3)**

**A. General Information**

Emissions unit ID SH 1  
Cyclone 1 Description Shavings Handling System  
SIC Code (4-digit) \_\_\_\_\_ SCC Code \_\_\_\_\_

**B. Emissions Unit Description**

Primary use or equipment type Pneumatic Conveying System for Shavings Handling  
Manufacturer American Sheet Metal Works Model No. Unknown  
Serial No. Unknown Installation date Unknown / \_\_\_\_  
Raw materials Shavings  
Finished products Shavings  
Temporary source: ☒ No ☐ Yes

**C. Activity or Production Rates**

Activity or Production Rate	Amount/Hour	Amount/Year
Actual Rate	<i>See attached calculations</i>	<i>See attached calculations</i>
Maximum rate	<i>See attached calculations</i>	<i>See attached calculations</i>

**D. Associated Air Pollution Control Equipment**

Emissions unit ID SH 1  
Cyclone 1 Device Type Cyclone  
Manufacturer American Sheet Metal Works Model No. \_\_\_\_\_  
Serial No. \_\_\_\_\_ Installation date Unknown / \_\_\_\_  
Control efficiency (%) \_\_\_\_\_ Capture efficiency (%) 99.975% (Dry material basis)  
Air pollutant(s) controlled PM Efficiency estimation method Oregon DEQ EF

**E. Ambient Impact Assessment** *Not Applicable*

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (This is not common)).

Stack height (ft) \_\_\_\_\_ Inside stack diameter (ft) \_\_\_\_\_

Stack temp (F) \_\_\_\_\_ Design stack flow rate (ACFM) \_\_\_\_\_

Actual stack flow rate (ACFM) \_\_\_\_\_ Velocity (ft/sec) \_\_\_\_\_

### INSTRUCTIONS FOR EUD-3 EMISSIONS UNIT DESCRIPTION FOR PROCESS SOURCES

This form is designed to describe emissions units for processes for which forms EUD-1 or EUD-2 are not appropriate. For example, sources such as rock crushers and asphalt batch plants. This form will help you to collect and organize technical information, including operational characteristics, applicable requirements, compliance terms, and emissions for each emissions unit.

**Section A** - The emissions unit ID should be consistent with the one used in section I of form **GIS**. Enter the four-digit SIC code for the unit, which may be different from that used for the facility as a whole. In addition, complete the Source Classification Code (SCC), if known or available, but this is not mandatory.

**Section B** - There may be other information that the permitting authority will need to know that is not specifically requested on the forms and that should be included on attachments. Such information would include information needed to adequately identify the emissions unit and to determine its applicable requirements.

**Section C** - The amount of raw materials that are processed and/or the number of activities performed are values that are typically multiplied by emissions factors to calculate PTE and actual emissions.

**Section D** - Identify and describe any associated air pollution control device. Attach copies of correspondence from the vendor documenting these values, if available, or indicate how these values were otherwise determined (e.g., AP-42).

**Section E** - Complete this section only if ambient impact assessment is an applicable requirement or the facility is a temporary source. This is not common.

Federal Operating Permit Program (40 CFR Part 71)  
**EMISSION UNIT DESCRIPTION FOR PROCESS SOURCES (EUD-3)**

**A. General Information**

Emissions unit ID SD 2  
Cyclone 2 Description Green Saw Dust Handling System  
SIC Code (4-digit) \_\_\_\_\_ SCC Code \_\_\_\_\_

**B. Emissions Unit Description**

Primary use or equipment type Pneumatic Conveying System for Green Sawdust Handling  
Manufacturer Rodrigue Metal Model No. Unknown  
Serial No. Unknown Installation date Unknown / \_\_\_\_\_  
Raw materials Green Sawdust  
Finished products Green Sawdust  
Temporary source: ☒ No ☐ Yes

**C. Activity or Production Rates**

Activity or Production Rate	Amount/Hour	Amount/Year
Actual Rate	<i>See attached calculations</i>	<i>See attached calculations</i>
Maximum rate	<i>See attached calculations</i>	<i>See attached calculations</i>

**D. Associated Air Pollution Control Equipment**

Emissions unit ID SD 2  
Cyclone 2 Device Type Multi-Clone  
Manufacturer Rodrigue Metal Model No. \_\_\_\_\_  
Serial No. \_\_\_\_\_ Installation date Unknown / \_\_\_\_\_  
Control efficiency (%) \_\_\_\_\_ Capture efficiency (%) 99.975% (Dry material basis)  
Air pollutant(s) controlled PM Efficiency estimation method Oregon DEQ EF

**E. Ambient Impact Assessment** *Not Applicable*

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (This is not common)).

Stack height (ft) \_\_\_\_\_ Inside stack diameter (ft) \_\_\_\_\_

Stack temp (F) \_\_\_\_\_ Design stack flow rate (ACFM) \_\_\_\_\_

Actual stack flow rate (ACFM) \_\_\_\_\_ Velocity (ft/sec) \_\_\_\_\_

### INSTRUCTIONS FOR EUD-3 EMISSIONS UNIT DESCRIPTION FOR PROCESS SOURCES

This form is designed to describe emissions units for processes for which forms EUD-1 or EUD-2 are not appropriate. For example, sources such as rock crushers and asphalt batch plants. This form will help you to collect and organize technical information, including operational characteristics, applicable requirements, compliance terms, and emissions for each emissions unit.

**Section A** - The emissions unit ID should be consistent with the one used in section I of form **GIS**. Enter the four-digit SIC code for the unit, which may be different from that used for the facility as a whole. In addition, complete the Source Classification Code (SCC), if known or available, but this is not mandatory.

**Section B** - There may be other information that the permitting authority will need to know that is not specifically requested on the forms and that should be included on attachments. Such information would include information needed to adequately identify the emissions unit and to determine its applicable requirements.

**Section C** - The amount of raw materials that are processed and/or the number of activities performed are values that are typically multiplied by emissions factors to calculate PTE and actual emissions.

**Section D** - Identify and describe any associated air pollution control device. Attach copies of correspondence from the vendor documenting these values, if available, or indicate how these values were otherwise determined (e.g., AP-42).

**Section E** - Complete this section only if ambient impact assessment is an applicable requirement or the facility is a temporary source. This is not common.

Federal Operating Permit Program (40 CFR Part 71)  
**EMISSION UNIT DESCRIPTION FOR PROCESS SOURCES (EUD-3)**

**A. General Information**

Emissions unit ID GC 2  
Cyclone 3 Description Green Chips Handling System  
SIC Code (4-digit) \_\_\_\_\_ SCC Code \_\_\_\_\_

**B. Emissions Unit Description**

Primary use or equipment type Pneumatic Conveying System for Green Chips Handling  
Manufacturer Precision Husky Model No. Unknown  
Serial No. Unknown Installation date Unknown / \_\_\_\_\_  
Raw materials Green Chips  
Finished products Green Chips  
Temporary source: ☒ No ☐ Yes

**C. Activity or Production Rates**

Activity or Production Rate	Amount/Hour	Amount/Year
Actual Rate	<i>See attached calculations</i>	<i>See attached calculations</i>
Maximum rate	<i>See attached calculations</i>	<i>See attached calculations</i>

**D. Associated Air Pollution Control Equipment**

Emissions unit ID GC 2  
Cyclone 3 Device Type Cyclone  
Manufacturer Precision Husky Model No. \_\_\_\_\_  
Serial No. \_\_\_\_\_ Installation date Unknown / \_\_\_\_\_  
Control efficiency (%) \_\_\_\_\_ Capture efficiency (%) 99.975% (Dry material basis)  
Air pollutant(s) controlled PM Efficiency estimation method Oregon DEQ EF



**E. Ambient Impact Assessment** *Not Applicable*

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (This is not common)).

Stack height (ft) \_\_\_\_\_ Inside stack diameter (ft) \_\_\_\_\_

Stack temp (F) \_\_\_\_\_ Design stack flow rate (ACFM) \_\_\_\_\_

Actual stack flow rate (ACFM) \_\_\_\_\_ Velocity (ft/sec) \_\_\_\_\_

### INSTRUCTIONS FOR EUD-3 EMISSIONS UNIT DESCRIPTION FOR PROCESS SOURCES

This form is designed to describe emissions units for processes for which forms EUD-1 or EUD-2 are not appropriate. For example, sources such as rock crushers and asphalt batch plants. This form will help you to collect and organize technical information, including operational characteristics, applicable requirements, compliance terms, and emissions for each emissions unit.

**Section A** - The emissions unit ID should be consistent with the one used in section I of form **GIS**. Enter the four-digit SIC code for the unit, which may be different from that used for the facility as a whole. In addition, complete the Source Classification Code (SCC), if known or available, but this is not mandatory.

**Section B** - There may be other information that the permitting authority will need to know that is not specifically requested on the forms and that should be included on attachments. Such information would include information needed to adequately identify the emissions unit and to determine its applicable requirements.

**Section C** - The amount of raw materials that are processed and/or the number of activities performed are values that are typically multiplied by emissions factors to calculate PTE and actual emissions.

**Section D** - Identify and describe any associated air pollution control device. Attach copies of correspondence from the vendor documenting these values, if available, or indicate how these values were otherwise determined (e.g., AP-42).

**Section E** - Complete this section only if ambient impact assessment is an applicable requirement or the facility is a temporary source. This is not common.

Federal Operating Permit Program (40 CFR Part 71)  
**EMISSION UNIT DESCRIPTION FOR PROCESS SOURCES (EUD-3)**

**A. General Information**

Emissions unit ID SH 2  
Cyclone 4 Description Shavings Handling System  
SIC Code (4-digit) \_\_\_\_\_ SCC Code \_\_\_\_\_

**B. Emissions Unit Description**

Primary use or equipment type Pneumatic Conveying System for Shavings Handling  
Manufacturer Rodrigue Metal Model No. Unknown  
Serial No. Unknown Installation date Unknown / \_\_\_\_\_  
Raw materials Shavings  
Finished products Shavings  
Temporary source: ☒ No ☐ Yes

**C. Activity or Production Rates**

Activity or Production Rate	Amount/Hour	Amount/Year
Actual Rate	<i>See attached calculations</i>	<i>See attached calculations</i>
Maximum rate	<i>See attached calculations</i>	<i>See attached calculations</i>

**D. Associated Air Pollution Control Equipment**

Emissions unit ID SH 1  
Cyclone 1 Device Type Cyclone  
Manufacturer Rodrigue Metal Model No. \_\_\_\_\_  
Serial No. \_\_\_\_\_ Installation date Unknown / \_\_\_\_\_  
Control efficiency (%) \_\_\_\_\_ Capture efficiency (%) 99.975% (Dry material basis)  
Air pollutant(s) controlled PM Efficiency estimation method Oregon DEQ EF

**E. Ambient Impact Assessment***Not Applicable*

This information must be completed by temporary sources or when ambient impact assessment is an applicable requirement for this emissions unit (This is not common)).

Stack height (ft) \_\_\_\_\_ Inside stack diameter (ft) \_\_\_\_\_

Stack temp (F) \_\_\_\_\_ Design stack flow rate (ACFM) \_\_\_\_\_

Actual stack flow rate (ACFM) \_\_\_\_\_ Velocity (ft/sec) \_\_\_\_\_

### INSTRUCTIONS FOR EUD-3 EMISSIONS UNIT DESCRIPTION FOR PROCESS SOURCES

This form is designed to describe emissions units for processes for which forms EUD-1 or EUD-2 are not appropriate. For example, sources such as rock crushers and asphalt batch plants. This form will help you to collect and organize technical information, including operational characteristics, applicable requirements, compliance terms, and emissions for each emissions unit.

**Section A** - The emissions unit ID should be consistent with the one used in section I of form **GIS**. Enter the four-digit SIC code for the unit, which may be different from that used for the facility as a whole. In addition, complete the Source Classification Code (SCC), if known or available, but this is not mandatory.

**Section B** - There may be other information that the permitting authority will need to know that is not specifically requested on the forms and that should be included on attachments. Such information would include information needed to adequately identify the emissions unit and to determine its applicable requirements.

**Section C** - The amount of raw materials that are processed and/or the number of activities performed are values that are typically multiplied by emissions factors to calculate PTE and actual emissions.

**Section D** - Identify and describe any associated air pollution control device. Attach copies of correspondence from the vendor documenting these values, if available, or indicate how these values were otherwise determined (e.g., AP-42).

**Section E** - Complete this section only if ambient impact assessment is an applicable requirement or the facility is a temporary source. This is not common.

Federal Operating Permit Program (40 CFR Part 71)  
**EMISSION CALCULATIONS (EMISS)**

Calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section I of form **GIS**. If form **FEE** does not need to be submitted with the application, do not calculate actual emissions.

**A. Emissions Unit ID** Site Wide

**B. Identification and Quantification of Emissions**

For each emissions unit identified above, list each regulated air pollutant or other pollutant for which the source is major, then list any other regulated pollutant (for fee calculation) not already listed. HAP may be simply listed as "HAP." Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives for fee purposes. See instructions concerning GHGs. Values should be reported to the nearest tenth (0.1) of a ton for yearly values or tenth (0.1) of a pound for hourly values.

Air Pollutants	Emission Rates			CAS No.
	Actual Annual Emissions (tons/yr)	Potential to Emit		
		Hourly (lb/hr)	Annual (tons/yr)	
SOx	0.8	0.8	3.6	
NOx	16.5	16.5	72.1	
CO	9.5	9.5	41.6	
VOC	61.4	50.3	220.1	
PM10	39.2	8.7	38.3	
HAP	3.7	11.8	51.5	
Methanol	2.4	10.0	43.7	

**Federal Operating Permit Program (40 CFR Part 71)  
POTENTIAL TO EMIT (PTE)**

For each emissions unit at the facility, list the unit ID and the PTE of each air pollutant listed below and sum the values to determine the total PTE for the facility. It may be helpful to complete form **EMISS** before completing this form. Report each pollutant at each unit to the nearest tenth (0.1) of a ton; values may be reported with greater precision (i.e., more decimal places) if desired. Report facility total PTE for each listed pollutant on this form and in section **J** of form **GIS**. The HAP column is for the PTE of all HAPs for each unit. You may use an attachment to show any pollutants that may be present in major amounts that are not already listed on the form (this is not common).

Emissions Unit ID	Regulated Air Pollutants and Pollutants for which Source is Major (PTE in tons/yr)						
	NOx	VOC	SO <sub>2</sub>	PM <sub>10</sub>	CO	Lead	HAP
<i>Site Wide</i>	<i>72.1</i>	<i>220.1</i>	<i>3.6</i>	<i>38.3</i>	<i>41.8</i>	<i>0</i>	<i>51.5</i>
<b>FACILITY TOTALS:</b>							

**Federal Operating Permit Program (40 CFR Part 71)**  
**INSIGNIFICANT EMISSIONS (IE)**

On this page list each insignificant activity or emission unit. In the "number" column, indicate the number of units in this category. Descriptions should be brief but unique. Indicate which emissions criterion of part 71 is the basis for the exemption.

Number	Description of Activities or Emissions Units	RAP (except HAP)	HAP
<i>2</i>	<i>Saw Sharpening Metal Filings Handling</i>	<i>&lt; 2 tpy</i>	<i>None</i>
<i>7</i>	<i>Oil Storage 12,000 gallons or fewer</i>	<i>&lt; 2 tpy</i>	<i>None</i>
<i>1</i>	<i>Gasoline Fuel Storage 500 gallons</i>	<i>&lt; 2 tpy</i>	<i>&lt; 1,000 lbs/yr</i>



**Federal Operating Permit Program (40 CFR Part 71)  
INITIAL COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION (I-COMP)**

**SECTION A - COMPLIANCE STATUS AND COMPLIANCE PLAN**

Complete this section for each unique combination of applicable requirements and emissions units at the facility. List all compliance methods (monitoring, recordkeeping and reporting) you used to determine compliance with the applicable requirement described above. Indicate your compliance status at this time for this requirement and compliance methods and check "YES" or "NO" to the follow-up question.

Emission Unit ID(s): ***Boilers 1, 2, 3, & 4***

Applicable Requirement (Describe and Cite)

***Visible Emissions (VE) limits - 40 CFR 49.124***

***VE must not exceed 20% opacity, averaged over any consecutive 6-minute period. 49.124(2)(1).***

Compliance Methods for the Above (Description and Citation):

***The reference test method is EPA Method 9. 40 CFR 49.124(e)(1).***

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): ***Boilers 1, 2, 3, & 4***

Applicable Requirement (Description and Citation):

***Sulfur dioxide limits - 40 CFR 49.129***

***SO2 emissions from combustion source stacks must not exceed an average of 500 ppmv, on a dry basis corrected to 7% O2, during any 3-hour period. 49.129(a)(1).***

Compliance Methods for the Above (Description and Citation):

***All boilers are fueled exclusively with LPG conforming to ASTM D 1835 HD 5 which limits total sulfur content to 123 ppmw. This fuel concentration results in a stack concentration of approximately 5 ppmv of total sulfur.***

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

**Federal Operating Permit Program (40 CFR Part 71)  
INITIAL COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION (I-COMP)**

**SECTION A - COMPLIANCE STATUS AND COMPLIANCE PLAN**

Complete this section for each unique combination of applicable requirements and emissions units at the facility. List all compliance methods (monitoring, recordkeeping and reporting) you used to determine compliance with the applicable requirement described above. Indicate your compliance status at this time for this requirement and compliance methods and check "YES" or "NO" to the follow-up question.

Emission Unit ID(s): *Boilers 1, 2, 3, & 4*

Applicable Requirement (Describe and Cite)

*Particulate Matter (PM) limits - 40 CFR 49.125*

*PM emissions from combustion source stacks must not exceed an average of 0.1 grains per dscf, corrected to 7% O<sub>2</sub>, during any 3-hour period. 49.125(d)(1).*

Compliance Methods for the Above (Description and Citation):

*The AP-42 emission factor for PM from LPG combustion is 0.7 lbs/1,000 gallons.  
This will result in an approximate stack concentration of 0.001 grains per DSCF.*

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): *Boilers 1, 2, 3, & 4*

Applicable Requirement (Description and Citation):

*Rule for limiting sulfur in fuels - 40 CFR 49.130*

*Limit for gaseous fuels is 400 ppm*

Compliance Methods for the Above (Description and Citation):

*All boilers are fueled exclusively with LPG conforming to ASTM D 1835 HD 5 which limits total sulfur content to 123 ppmw.*

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

**Federal Operating Permit Program (40 CFR Part 71)  
INITIAL COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION (I-COMP)**

**SECTION A - COMPLIANCE STATUS AND COMPLIANCE PLAN**

Complete this section for each unique combination of applicable requirements and emissions units at the facility. List all compliance methods (monitoring, recordkeeping and reporting) you used to determine compliance with the applicable requirement described above. Indicate your compliance status at this time for this requirement and compliance methods and check "YES" or "NO" to the follow-up question.

Emission Unit ID(s): *Boilers 1, 2, 3, & 4*

Applicable Requirement (Describe and Cite)

*NSPS Subpart Dc, SO<sub>2</sub> standard - 40 CFR Part 60.42.c*

*Shall not combust oil that contains greater than 0.5 weight percent sulfur. 60.42c(d).*

Compliance Methods for the Above (Description and Citation):

*All boilers are fueled exclusively with LPG conforming to ASTM D 1835 HD 5 which limits total sulfur content to 123 ppmw.*

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): *Boilers 1, 2, 3, & 4*

Applicable Requirement (Description and Citation):

*Boiler NESHAP - 40 CFR 63.7510*

*Energy assessment and tune-up.*

Compliance Methods for the Above (Description and Citation):

*Energy Assessment completed. Tune-ups performed on maximum 5 yr intervals due to installed oxygen sensor.*

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

**Federal Operating Permit Program (40 CFR Part 71)  
INITIAL COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION (I-COMP)**

**SECTION A - COMPLIANCE STATUS AND COMPLIANCE PLAN**

Complete this section for each unique combination of applicable requirements and emissions units at the facility. List all compliance methods (monitoring, recordkeeping and reporting) you used to determine compliance with the applicable requirement described above. Indicate your compliance status at this time for this requirement and compliance methods and check "YES" or "NO" to the follow-up question.

Emission Unit ID(s): *Kilns 1 & 2*

Applicable Requirement (Describe and Cite)

*Visible emissions (VE) limits - 40 CFR 49.124.*

*VE must not exceed 20% opacity, averaged over any consecutive 6-minute period, unless the presence of uncombined water, such as steam, is the only reason for the failure of an air pollution source to meet the 20% opacity limit. 49.124(d)(1)&(2).*

Compliance Methods for the Above (Description and Citation):

*During normal operation, the kiln vents emit steam, not plumes with opacity. If a kiln emitted smoke, it would mean that there was a fire in the kiln, in which case the response would be immediate.*

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s):

Applicable Requirement (Description and Citation):

Compliance Methods for the Above (Description and Citation):

Compliance Status:

☐ In Compliance: Will you continue to comply up to permit issuance? ☐ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

**Federal Operating Permit Program (40 CFR Part 71)****INITIAL COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION (I-COMP)****SECTION A - COMPLIANCE STATUS AND COMPLIANCE PLAN**

Complete this section for each unique combination of applicable requirements and emissions units at the facility. List all compliance methods (monitoring, recordkeeping and reporting) you used to determine compliance with the applicable requirement described above. Indicate your compliance status at this time for this requirement and compliance methods and check "YES" or "NO" to the follow-up question.

Emission Unit ID(s): *Kilns 1 & 2*

Applicable Requirement (Describe and Cite)

*Particulate Matter (PM) limits - 40 CFR 49.125*

*PM emissions from source must not exceed an average of 0.1 grains per dscf 49.125(d)(3).*

Compliance Methods for the Above (Description and Citation):

*The lumber kilns are not considered sources of particulate matter.*

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): *Kilns 1 & 2*

Applicable Requirement (Description and Citation):

*Plywood and Composite Wood Products MACT (40 CFR Part 63 Subpart DDDD).*

*Section 63.9(b) requires submission of initial notification.*

Compliance Methods for the Above (Description and Citation):

*YFP provided the required initial notification information to EPA in December 2009.*

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

**Federal Operating Permit Program (40 CFR Part 71)  
INITIAL COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION (I-COMP)****SECTION A - COMPLIANCE STATUS AND COMPLIANCE PLAN**

Complete this section for each unique combination of applicable requirements and emissions units at the facility. List all compliance methods (monitoring, recordkeeping and reporting) you used to determine compliance with the applicable requirement described above. Indicate your compliance status at this time for this requirement and compliance methods and check "YES" or "NO" to the follow-up question.

Emission Unit ID(s): *HF 2, GC 2, SH 1 & 2*

Applicable Requirement (Describe and Cite)

*Particulate Matter (PM) limits - 40 CFR 49.125*

*PM emissions from source must not exceed an average of 0.1 grains per dscf 49.125(d)(3).*

Compliance Methods for the Above (Description and Citation):

*Engineering calculations show that the particulate concentration in these stacks is below 0.1 grain/dscf.*

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): *HF 1 & 2, SD 1 & 2, GC 1 & 2, DC 1 & 2, SH 1 & 2, FD 1 & 2*

Applicable Requirement (Description and Citation):

*Visible Emissions (VE) limits - 40 CFR 49.124*

*VE must not exceed 20% opacity, averaged over any consecutive 6-minute period. 49.124(2)(1).*

Compliance Methods for the Above (Description and Citation):

*The reference test method is EPA method 9. 49.124(e)(1).*

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No



**Federal Operating Permit Program (40 CFR Part 71)  
INITIAL COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION (I-COMP)**

**SECTION A - COMPLIANCE STATUS AND COMPLIANCE PLAN**

Complete this section for each unique combination of applicable requirements and emissions units at the facility. List all compliance methods (monitoring, recordkeeping and reporting) you used to determine compliance with the applicable requirement described above. Indicate your compliance status at this time for this requirement and compliance methods and check "YES" or "NO" to the follow-up question.

Emission Unit ID(s): ***HF 1 & 2, SD 1 & 2, GC 1 & 2, DC 1 & 2, SH 1 & 2, FD 1 & 2***

Applicable Requirement (Describe and Cite)

*Fugitive particulate matter limits - 40 CFR 49.126.  
Take all reasonable precautions to prevent fugitive particulate matter emissions and maintain and operate the source to minimize fugitive particulate matter emissions. 49.126(d)(1).*

Compliance Methods for the Above (Description and Citation):

***Conduct survey and prepare plan per 49.126(e)(1).***

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): ***General/Source-wide***

Applicable Requirement (Description and Citation):

***Demolition or renovation activity NESHAP, 40 CFR Part 61, Subpart M, 61.145.  
Inspect for asbestos prior to any demolition or renovation.***

Compliance Methods for the Above (Description and Citation):

***Inspect for asbestos prior to any demolition or renovation.***

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

**Federal Operating Permit Program (40 CFR Part 71)  
INITIAL COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION (I-COMP)**

**SECTION A - COMPLIANCE STATUS AND COMPLIANCE PLAN**

Complete this section for each unique combination of applicable requirements and emissions units at the facility. List all compliance methods (monitoring, recordkeeping and reporting) you used to determine compliance with the applicable requirement described above. Indicate your compliance status at this time for this requirement and compliance methods and check "YES" or "NO" to the follow-up question.

Emission Unit ID(s): *General/Source-wide*

Applicable Requirement (Describe and Cite)

*FARR Annual Registration Report - 40 CFR 49.138(f)*

Compliance Methods for the Above (Description and Citation):

*YFP has been submitting annual registration reports to EPA since 2003.*

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): *General/Source-wide*

Applicable Requirement (Description and Citation):

*Stratospheric ozone and climate protection, 40 CFR Part 82, Subpart F.*

Compliance Methods for the Above (Description and Citation):

*YFP outsources all refrigerant services to compliant providers.*

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

**Federal Operating Permit Program (40 CFR Part 71)  
INITIAL COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION (I-COMP)**

**SECTION A - COMPLIANCE STATUS AND COMPLIANCE PLAN**

Complete this section for each unique combination of applicable requirements and emissions units at the facility. List all compliance methods (monitoring, recordkeeping and reporting) you used to determine compliance with the applicable requirement described above. Indicate your compliance status at this time for this requirement and compliance methods and check "YES" or "NO" to the follow-up question.

Emission Unit ID(s): *General/Source-wide*

Applicable Requirement (Describe and Cite)

*Title V/Part 71 permit application/renewal. - 40 CFR 71.5(a).*

Compliance Methods for the Above (Description and Citation):

*YFP has not submitted a renewal application prior to 6 months of existing permit expiration.*

Compliance Status:

☐ In Compliance: Will you continue to comply up to permit issuance? ☐ Yes ☐ No

☒ Not In Compliance: Will you be in compliance at permit issuance? ☒ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

Emission Unit ID(s): *General/Source-wide*

Applicable Requirement (Description and Citation):

*Annual fees and compliance certification. - 40 CFR Part 71.9*

Compliance Methods for the Above (Description and Citation):

*Compliance certification and fees submitted since 2003.*

Compliance Status:

☒ In Compliance: Will you continue to comply up to permit issuance? ☒ Yes ☐ No

☐ Not In Compliance: Will you be in compliance at permit issuance? ☐ Yes ☐ No

☐ Future-Effective Requirement: Do you expect to meet this on a timely basis? ☐ Yes ☐ No

**B. SCHEDULE OF COMPLIANCE**

Complete this section if you answered "NO" to any of the questions in section A. Also, complete this section if required to submit a schedule of compliance by an applicable requirement. Please attach copies of any judicial consent decrees or administrative orders for this requirement.

Unit(s) \_\_\_\_\_ Requirement \_\_\_\_\_

**Reason for Noncompliance.** Briefly explain reason for noncompliance at time of permit issuance or that future-effective requirement will not be met on a timely basis:

**Narrative Description of how Source Compliance Will be Achieved.** Briefly explain your plan for achieving compliance:

**Schedule of Compliance.** Provide a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance, including a date for final compliance.

Remedial Measure or Action	Date to be Achieved

**C. SCHEDULE FOR SUBMISSION OF PROGRESS REPORTS**

Only complete this section if you are required to submit one or more schedules of compliance in section B or if an applicable requirement requires submittal of a progress report. If a schedule of compliance is required, your progress report should start within 6 months of application submittal and subsequently, no less than every six months. One progress report may include information on multiple schedules of compliance.

Contents of Progress Report (describe):

First Report \_\_\_\_/\_\_\_\_/\_\_\_\_ Frequency of Submittal \_\_\_\_\_

Contents of Progress Report (describe):

First Report \_\_\_\_/\_\_\_\_/\_\_\_\_ Frequency of Submittal \_\_\_\_\_

**D. SCHEDULE FOR SUBMISSION OF COMPLIANCE CERTIFICATIONS**

This section must be completed once by every source. Indicate when you would prefer to submit compliance certifications during the term of your permit (at least once per year).

Frequency of submittal Annual Beginning 4 / 1 / 2021

**E. COMPLIANCE WITH ENHANCED MONITORING & COMPLIANCE CERTIFICATION REQUIREMENTS**

This section must be completed once by every source. To certify compliance with these, you must be able to certify compliance for every applicable requirement related to monitoring and compliance certification at every unit.

Enhanced Monitoring Requirements: X In Compliance        Not In Compliance

Compliance Certification Requirements: X In Compliance        Not In Compliance

**Attachment 2**  
**Example Fee Forms and Emissions Calculations**

**Table 1**  
**Yakama Forest Products**  
**Annual Emission Estimate**  
**Input Data**

Unit Fee  per ton

Calender year

Operating Condition	Units	Actual Annual Value
---------------------	-------	------------------------

**Species Cut**

Grand Fir	mbf/yr	<input type="text" value="1,110"/>
Douglas Fir	mbf/yr	<input type="text" value="7,693"/>
Pine	mbf/yr	<input type="text" value="36,272"/>
<b>Total</b>	mbf/yr	<input type="text" value="45,076"/>

**By Products**

Shavings	bdt/yr	<input type="text" value="10,640"/>
Hog Fuel	bdt/yr	<input type="text" value="17,828"/>
Green (Kraft) Chips	bdt/yr	<input type="text" value="28,617"/>
Dry Chips	bdt/yr	<input type="text" value="0"/>
Sawdust	bdt/yr	<input type="text" value="9,002"/>

**Small Log Mill**

Boiler Operating Hours	hrs/yr/boiler	<input type="text" value="0"/>
Boiler Fuel	gal/yr	<input type="text" value="0"/>

**Large Log Mill**

Boiler Operating Hours (#3)	hrs/yr/boiler	<input type="text" value="7,544"/>
Boiler Operating Hours (#4)	hrs/yr/boiler	<input type="text" value="7,827"/>
Boiler Fuel (LPG)	gal/yr	<input type="text" value="2,544,495"/>



**Table 2**  
**Yakama Forest Products**  
**Annual Emission Estimate**  
**Section D Form**

Calender year		2019						
Emission Unit	Unit ID		NOx	VOC	SO2	PM10	Lead	Total
Boiler	Boiler 1		0.0	0.0	0.0	0.0	0.0	0.0
Boiler	Boiler 2		0.0	0.0	0.0	0.0	0.0	0.0
Boiler	Boiler 3		8.3	0.6	0.4	0.4	0.0	9.8
Boiler	Boiler 4		8.3	0.6	0.4	0.4	0.0	9.8
Drying Kiln	Kiln 1			0.0		0.0		0.0
Drying Kiln	Kiln 2			49.7		1.1		50.8
Cyclone	C 1			0.0		0.0		0.0
Cyclone	C 2			2.0		1.9		3.9
Cyclone	C 3			6.0		6.1		12.1
Cyclone	C 4			2.4		2.3		4.7
Hog Fuel H&S	HF 1					0.0		0.0
Hog Fuel H&S	HF 2					0.0		0.0
Sawdust H&S	SD 1					0.0		0.0
Sawdust H&S	SD 2					0.0		0.0
Green Chip H&S	GC 1					0.0		0.0
Green Chip H&S	GC 2					0.0		0.0
Dry Chip H&S	DC 1					0.0		0.0
Dry Chip H&S	DC 2					0.0		0.0
Shavings H&S	SH 1					0.0		0.0
Shavings H&S	SH 2					0.0		0.0
MFA						3.4		3.4
MNFA						3.5		3.5
Unpaved Roads	FD 1					10.9		10.9
Paved Roads	FD 2					9.2		9.2
Subtotals			16.5	61.4	0.8	39.2	0.0	118.0

**Table 3**  
**Yakama Forest Products**  
**Annual Emission Estimate**  
**Section E Form**

Calendar year		2019						
		HAP Emission by Unit (t/y)						
Name of HAP	CAS No.	Identifier		Kiln 1	Kiln 2	Mill	Subtotals	VOC Subtotal
Methanol	67561	HAP	1	0.00	2.03	0.39	2.411	2.4113
Formaldehyde	50000	HAP	2	0.00	0.09		0.087	0.0872
Acetaldehyde	75070	HAP	3	0.00	1.05		1.055	1.0546
Propionaldehyde	123386	HAP	4	0.00	0.06		0.062	0.0617
Acrolein	107028	HAP	5	0.00	0.09		0.087	0.0873
Total				0.0000	3.3161	0.3861	3.702	3.702

**Table 4**  
**Yakama Forest Products**  
**Annual Emission Estimate**  
**Section F Form**

Total Criteria Pollutants		117.97
Total HAPS		3.70
	Subtotal	121.67
VOC HAPS		3.70
Total Emissions		117.97
	(Rounded)	118
Unit Cost		\$53.81
Total Fee		\$6,349.58

Emissions Source	Pollutants (tpy)									Data Source/Comments
	SOx	NOx	CO	VOC	TP	PM10	PM25	HAP	Methanol	
Actual Emissions (Calendar Year 2019)										
Boiler	0.8	16.5	9.5	1.3	0.9	0.9	0.9	0.0		AP-42 Section 1.5 (HD-5 LPG)
Kiln				49.7	1.1	1.1		3.3	2.0	
Mill				10.4	12.1	10.3	6.0	0.39	0.39	
Misc. Non-fugitive Activities					6.8	3.4	1.70			
Misc. Fugitive Activities					7.1	3.5	1.76			
Fugitive Dust					20.0	20.0				
Total	0.8	16.5	9.5	61.4	48.0	39.2	10.4	3.7	2.4	
Total Point Source	0.8	16.5	9.5	61.4	20.9	15.7	8.6	3.7	2.4	

<b>Total Site Potential to emit in tons per calendar year</b>										
Boiler	3.6	72.1	41.6	5.5	3.9	3.9	3.9	0.0		AP-42 Section 1.5 (HD-5 LPG)
Kiln				198.2	5.1	5.1		50.9	43.1	Western White Pine (<200 oF) VOC
Mill				16.37	19.1	16.2	9.50	0.61	0.61	
Misc. Non-fugitive Activities					26.1	13.1	6.53			
<b>Total Point Source</b>	<b>3.6</b>	<b>72.1</b>	<b>41.6</b>	<b>220.1</b>	<b>54.3</b>	<b>38.3</b>	<b>19.9</b>	<b>51.5</b>	<b>43.7</b>	

**Notes:**

1. Boldface values are point sources.
2. All emission factors from existing Title V permit unless otherwise noted on detail worksheets.

**Table 6a**  
**Yakama Forest Products**  
**Boiler Emissions Calculations - 2019 Actual**

LPG  
ASTM D 1835 Special Duty (HD-5)

**Boiler Input Data**

**Data for Actual Emissions Calculation**

Paramter	Units	SLM Boiler 1	SLM Boiler 2	Total 1 & 2	LLM Boiler 3	LLM Boiler 4	Total 3 & 4
Use Factor		0%	0%		40%	41%	
Size	MMBTU/hr	24.92	24.92		33	33	
Fuel		LPG	LPG		LPG	LPG	
	Sulfur (ppmw)	123	123		123	123	
	Sulfur (gr/100 ft3)	6.5	6.5		6.5	6.5	
	#/gallon	4.240	4.240		4.240	4.240	
	gph	0.0	0.0		165.5	165.5	
	BTU/#	21,580	21,580		21,580	21,580	
	gal/yr	0	0	0	1,248,824	1,295,671	2,544,495
Fuel Heat Value	Mbtu/gal	91.5	91.5		91.5	91.5	
Annual Heat Load	Mmbtu/yr	0	0	0	114,267	118,554	232,821
Annual Op	hrs/yr	0	0		7,544.0	7,827.0	

**Actual Emissions**

Condition	Pollutants						
	SO2	NOx	CO	VOC	TP	PM10	PM25
<b>Small Boilers (Boilers 1 and 2 combined)</b>							
<b>AP-42 Factor (Section 1.5)</b>							
Calc'd Factors	0.1						
(#/1000 gallons)	0.65	13	7.5	1	0.7	0.7	0.7
Emissions							
(#/yr)	0	0	0	0	0	0	0
(ton/yr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Value Used (tpy)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Large Boilers (Boilers 3 and 4 combined)</b>							
<b>AP-42 Factor (Section 1.5)</b>							
Calc'd Factors	0.1						
(#/1000 gallons)	0.65	13	7.5	1	0.7	0.7	0.7
Emissions							
(#/yr)	1,643	33,078	19,084	2,544	1,781	1,781	1,781
(ton/yr)	0.82	16.5	9.5	1.3	0.9	0.9	0.9
Value Used (tpy)	0.82	16.5	9.5	1.3	0.9	0.9	0.9
<b>Total Emissions</b>	<b>0.82</b>	<b>16.5</b>	<b>9.5</b>	<b>1.3</b>	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>

**Notes:**

1. No HAPS listed as actual emissions because of no propane HAP emission factors.

**Table 6b**  
**Yakama Forest Products**  
**Boiler Emissions Calculations - PTE**

LPG  
ASTM D 1835 Special Duty (HD-5)

Boiler Input Data		Data for Actual Emissions Calculation					
Paramter	Units	SLM Boiler 1	SLM Boiler 2	Total 1 & 2	LLM Boiler 3	LLM Boiler 4	Total 3 & 4
Use Factor		100%	100%		100%	100%	
Size	MMBTU/hr	24.92	24.92		33	33	
Fuel		LPG	LPG		LPG	LPG	
	Sulfur (ppmw)	123	123		123	123	
	Sulfur (gr/100 ft3)	6.5	6.5		6.5	6.5	
	#/gallon	4.240	4.240		4.240	4.240	
	gph	0.0	0.0		360.7	360.7	
	BTU/#	21,580	21,580		21,580	21,580	
	gal/yr	2,385,784	2,385,784	4,771,567	3,159,344	3,159,344	6,318,689
Fuel Heat Value	Mbtu/gal	91.5	91.5		91.5	91.5	
Annual Heat Load	Mmbtu/yr	218,299	218,299	436,598	289,080	289,080	578,160
Annual Op	hrs/yr	8,760	8,760		8,760	8,760	

Actual Emissions

Condition	Pollutants						
	SO2	NOx	CO	VOC	TP	PM10	PM25
<b>Small Boilers (Boilers 1 and 2 combined)</b>							
<b>AP-42 Factor (Section 1.5)</b>							
Calc'd Factors	0.1						
(#/1000 gallons)	0.65	13	7.5	1	0.7	0.7	0.7
Emissions							
(#/yr)	3,081	62,030	35,787	4,772	3,340	3,340	3,340
<b>Value Used (tpy)</b>	<b>1.5</b>	<b>31.0</b>	<b>17.9</b>	<b>2.4</b>	<b>1.7</b>	<b>1.7</b>	<b>1.7</b>
<b>Large Boilers (Boilers 3 and 4 combined)</b>							
<b>AP-42 Factor (Section 1.5)</b>							
Calc'd Factors	0.1						
(#/1000 gallons)	0.65	13	7.5	1	0.7	0.7	0.7
Emissions							
(#/yr)	4,080	82,143	47,390	6,319	4,423	4,423	4,423
<b>Value Used (tpy)</b>	<b>2.04</b>	<b>41.1</b>	<b>23.7</b>	<b>3.2</b>	<b>2.2</b>	<b>2.2</b>	<b>2.2</b>
<b>Total Emissions</b>	<b>3.58</b>	<b>72.1</b>	<b>41.6</b>	<b>5.5</b>	<b>3.9</b>	<b>3.9</b>	<b>3.9</b>

Notes:

1. No HAPS listed as actual emissions because of no propane HAP emission factors.

**Table 7a**  
**Yakama Forest Products**  
**Kiln Emissions Calculations - Actual Emissions**  
**2019 Actual Emissions**

Log Species	Actual Production									
	Small Log	Log	Total							
	mbf/yr	mbf/yr	mbf/yr							
Grand Fir	0	1,110	1,110							
Douglas Fir	0	7,693	7,693							
Total Fir	0	8,803	8,803							
Pine	0	36,272	36,272							

Component	Pollutant								
	Criteria			HAPS					
	PM	PM10	VOC	Total	Methanol	Formaldehyde	Acetaldehyde	Propionaldehyde	Acrolein
<b>Emission Factor (#/MBF)</b>									
Grand Fir	0.05	0.05	1.0902	0.4956	0.42	0.0163	0.055	0.0018	0.0026
Douglas Fir	0.05	0.05	1.6969	0.1913	0.117	0.0043	0.0682	0.0007	0.0011
Pine <200 oF	0.05	0.05	2.345	0.1271	0.074	0.0034	0.042	0.0032	0.0045
<b>Actual Emissions (ton/yr)</b>									
Kiln 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kiln 2	1.1	1.1	49.7	3.3	2.0	0.1	1.1	0.1	0.1
Total Kiln	1.1	1.1	49.7	3.3	2.0	0.1	1.1	0.1	0.1

**Notes:**

1. Emission factors (PM) from OREGON DEQ AQ-EF02
2. Emission factors (VOC & HAP) from USEPA Region X (David Zehn 2/8/13).



**Table 7b**  
**Yakama Forest Products**  
**Kiln Emissions Calculations**  
**Potential to Emit**

Log Species	Actual Production								
	Small Log mbf/yr	Log mbf/yr	Total mbf/yr						
Grand Fir	88,815	116,527	205,342						
Douglas Fir	80,618	116,393	197,011						
Total Fir	169,433	232,920	402,353						
Pine	61,879	77,184	139,063						

Component	Pollutant								
	Criteria			HAPS					
	PM	PM10	VOC	Total	Methanol	Formaldehyde	Acetaldehyde	Propionaldehyde	Acrolein
<b>Emission Factor (#/MBF)</b>									
Grand Fir	0.05	0.05	1.0902	0.4956	0.42	0.0163	0.055	0.0018	0.0026
Douglas Fir	0.05	0.05	1.6969	0.1913	0.117	0.0043	0.0682	0.0007	0.0011
WW Pine <200 oF	0.05	0.05	<b>2.8505</b>	0.1271	0.074	0.0034	0.042	0.0032	0.0045
<b>Emissions (ton/yr)</b>									
Grand Fir	<b>2.22</b>	<b>2.22</b>	48.41	<b>22.01</b>	<b>18.65</b>	<b>0.72</b>	2.44	0.08	0.12
Douglas Fir	2.02	2.02	68.40	7.71	4.72	0.17	<b>2.75</b>	0.03	0.04
Pine <200 oF	1.55	1.55	<b>88.19</b>	3.93	2.29	0.11	1.30	<b>0.10</b>	<b>0.14</b>
<b>Kiln 2</b>									
Grand Fir	<b>2.91</b>	<b>2.91</b>	63.52	<b>28.88</b>	<b>24.47</b>	<b>0.95</b>	3.20	0.10	0.15
Douglas Fir	2.91	2.91	98.75	11.13	6.81	0.25	<b>3.97</b>	0.04	0.06
Pine <200 oF	1.93	1.93	<b>110.01</b>	4.91	2.86	0.13	1.62	<b>0.12</b>	<b>0.17</b>
<b>PTE Emissions (ton/yr)</b>									
Kiln 1	2.2	2.2	88.2	22.0	18.7	0.7	2.7	0.1	0.1
Kiln 2	2.9	2.9	110.0	28.9	24.5	0.9	4.0	0.1	0.2
Total Kiln	5.1	5.1	198.2	50.9	43.1	1.7	6.7	0.2	0.3

**Notes:**

1. Emission factors (PM) from OREGON DEQ AQ-EF02
2. Emission factors (VOC & HAP) from USEPA Region X (David Zehn 2/8/13).

**Table 8a**  
**Yakama Forest Products**  
**Mill Emissions Calculations - Summary**  
2019 Actual Emissions

#### Loadings Summary

Component	Units	Small Log Mill				Large Log Mill				Total
		Grand Fir	Douglas Fir	Pine	Total	Grand Fir	Douglas Fir	Pine	Total	
Percent Species of Total						2.5%	17.1%	80.5%		
Total BF	MMBF/yr	0	0	0	0	1,110	7,693	36,272	45,076	45,076
Total Weight										
% Hog Fuel	bdtpy	0	0	0	0	439	3,043	14,347	17,828	17,828
% Green Chips	bdtpy	0	0	0	0	705	4,884	23,029	28,617	28,617
% Dry Chips	bdtpy	0	0	0	0	0	0	0	0	0
% Sawdust	bdtpy	0	0	0	0	222	1,536	7,244	9,002	9,002
% Shavings	bdtpy	0	0	0	0	262	1,816	8,562	10,640	10,640

#### Emissions Summary

Parameter	Units	Cyclones				Bins										Mill Total
		C-1 SLM Shavings	C-2 LLM Sawdust	C-3 LLM Green Chips	C-4 LLM Shavings	HF1 SLM Hog Fuel	HF2 LLM	SD1 SLM Sawdust	SD2 LLM	GC1 SLM Green Chips	GC2 LLM	DC1 SLM Dry Chips	DC2 LLM	SH1 SLM Shavings	SH2 LLM	
PM	tpy	0.00	2.25	7.15	2.66	0.0000	0.0134	0.0000	0.0034	0.0000	0.0107	0.0000	0.0000	0.0000	0.0080	12.10
PM10	tpy	0.00	1.91	6.08	2.26	0.0000	0.0062	0.0000	0.0016	0.0000	0.0050	0.0000	0.0000	0.0000	0.0037	10.27
PM25	tpy	0.00	1.13	3.58	1.33	0.0000	0.0009	0.0000	0.0002	0.0000	0.0007	0.0000	0.0000	0.0000	0.0005	6.03
VOC	tpy	0.00	2.03	5.98	2.43											10.44
Methanol	tpy	0.00	0.07	0.23	0.09											0.39

**Table 8b**  
**Yakama Forest Products**  
**Mill Emissions Calculations - Summary**  
Potential to Emit

**Loadings Summary**

Component	Units	Small Log Mill				Large Log Mill				Total
		Grand Fir	Douglas Fir	Pine	Max	Grand Fir	Douglas Fir	Pine	Max	
% Hog Fuel	bdtpy	25,577	24,264	15,521	25,577	21,826	30,070	11,131	30,070	55,648
% Green Chips	bdtpy	70,102	52,268	62,171	70,102	39,186	38,033	30,986	39,186	109,288
% Dry Chips	bdtpy	5,086	4,626	3,550	5,086	6,674	6,409	4,430	6,674	11,760
% Sawdust	bdtpy	11,633	8,957	10,890	11,633	6,684	7,987	13,178	13,178	24,811
% Shavings	bdtpy	8,226	7,467	5,731	8,226	11,653	11,369	15,344	15,344	23,570

**Emissions Summary**

Parameter	Units	Cyclones				Bins										Mill Total
		C-1	C-2	C-3	C-4	HF1	HF2	SD1	SD2	GC1	GC2	DC1	DC2	SH1	SH2	
		SLM	LLM	LLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM	
		Shavings	Sawdust	Green Chips	Shavings	Hog Fuel		Sawdust	Green Chips	Dry Chips	Shavings					
PM	tpy	2.06	3.29	9.80	3.84	0.0192	0.0226	0.0087	0.0049	0.0526	0.0147	0.0076	0.0100	0.0062	0.0115	19.14
PM10	tpy	1.75	2.80	8.33	3.26	0.0090	0.0105	0.0041	0.0023	0.0245	0.0069	0.0036	0.0047	0.0029	0.0054	16.21
PM25	tpy	1.03	1.65	4.90	1.92	0.0013	0.0015	0.0006	0.0003	0.0035	0.0010	0.0005	0.0007	0.0004	0.0008	9.50
VOC	tpy	1.44	3.31	7.77	3.85											16.37
Methanol	tpy	0.07	0.11	0.31	0.12											0.61

**Table 9**  
**Yakama Forest Products**  
**Cyclone Emissions**

Parameter	Units	Cyclones			
Source ID		C-1	C-2	C-3	C-4
Location		SLM	LLM	LLM	LLM
Material		Shavings	Sawdust	Green Chips	Shavings
<b>Loadings</b>					
Grand Fir	bdtpy	0	222	705	262
Douglas Fir	bdtpy	0	1,536	4,884	1,816
Pine	bdtpy	0	7,244	23,029	8,562
Total	bdtpy	0	9,002	28,617	10,640
<b>Emission Factors</b>					
PM	#/bdt	0.50	0.50	0.50	0.50
PM10	#/bdt	0.43	0.43	0.43	0.43
PM25	#/bdt	0.25	0.25	0.25	0.25
<b>VOC</b>					
Grand Fir	#/bdt	0.2692	0.2386	0.0734	0.2692
Douglas Fir	#/bdt	0.2692	0.2386	0.0734	0.2692
Pine	#/bdt	0.5017	0.5017	0.5017	0.5017
Methanol	#/bdt	0.016	0.016	0.016	0.016
<b>Emissions</b>					
PM	t/yr	0.0	2.3	7.2	2.7
PM10	t/yr	0.0	1.9	6.1	2.3
PM25	t/yr	0.0	1.1	3.6	1.3
VOC	t/yr	0.0	2.0	6.0	2.4
Methanol	t/yr	0.000	0.072	0.229	0.085

Note:

1. All emission factors from Title V Permit except VOC emission factors provided by Doug Hardesty 3/9/16

PTE

Parameter	Units	Cyclones			
Source ID		C-1	C-2	C-3	C-4
Location		SLM	LLM	LLM	LLM
Material		Shavings	Sawdust	Green Chips	Shavings
<b>Loadings</b>					
Grand Fir	bdtpy	8,226	6,684	39,186	11,653
Douglas Fir	bdtpy	7,467	7,987	38,033	11,369
Pine	bdtpy	5,731	13,178	30,986	15,344
Max	bdtpy	8,226	13,178	39,186	15,344
<b>Emission Factors</b>					
PM	#/bdt	0.50	0.50	0.50	0.50
PM10	#/bdt	0.43	0.43	0.43	0.43
PM25	#/bdt	0.25	0.25	0.25	0.25
<b>VOC</b>					
Grand Fir	#/bdt	0.2692	0.2386	0.0734	0.2692
Douglas Fir	#/bdt	0.2692	0.2386	0.0734	0.2692
Pine	#/bdt	0.5017	0.5017	0.5017	0.5017
Methanol	#/bdt	0.016	0.016	0.016	0.016
<b>Emissions</b>					
PM	t/yr	2.1	3.3	9.8	3.8
PM10	t/yr	1.7	2.8	8.3	3.3
PM25	t/yr	1.0	1.6	4.9	1.9
VOC	t/yr	1.4	3.3	7.8	3.8
Methanol	t/yr	0.066	0.105	0.313	0.123

**Table 10**  
**Yakama Forest Products**  
**Bin Emissions**

**2019 Actual Emissions**

Parameter	Units	Bins									
Source ID		HF1	HF2	SD1	SD2	GC1	GC2	DC1	DC2	SH1	SH2
Location		SLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM
Material		Hog Fuel		Sawdust		Green Chips		Dry Chips		Shavings	
Loadings	bdt/tpy	0	17,828	0	9,002	0	28,617	0	0	0	10,640
<b>Emission Factors</b>											
Filling											
PM	#/bdt	0.00075	0.00075	0.00075	Cyclone C-2	0.00075	Cyclone C-3	0.0015	0.0015	Cyclone C-1	Cyclone C-4
PM10	#/bdt	0.00035	0.00035	0.00035	Cyclone C-2	0.00035	Cyclone C-3	0.0007	0.0007	Cyclone C-1	Cyclone C-4
PM25	#/bdt	0.00005	0.00005	0.00005	Cyclone C-2	0.00005	Cyclone C-3	0.0001	0.0001	Cyclone C-1	Cyclone C-4
Truck Loading											
PM	#/bdt	0.00075	0.00075	0.00075	0.00075	0.00075	0.00075	0.0015	0.0015	0.0015	0.0015
PM10	#/bdt	0.00035	0.00035	0.00035	0.00035	0.00035	0.00035	0.0007	0.0007	0.0007	0.0007
PM25	#/bdt	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.0001	0.0001	0.0001	0.0001
<b>Emissions</b>											
Filling											
PM	tpy	0.0000	0.0067	0.0000	Cyclone C-2	0.0000	Cyclone C-3	0.0000	0.0000	Cyclone C-1	Cyclone C-4
PM10	tpy	0.0000	0.0031	0.0000	Cyclone C-2	0.0000	Cyclone C-3	0.0000	0.0000	Cyclone C-1	Cyclone C-4
PM25	tpy	0.0000	0.0004	0.0000	Cyclone C-2	0.0000	Cyclone C-3	0.0000	0.0000	Cyclone C-1	Cyclone C-4
Truck Loading											
PM	tpy	0.0000	0.0067	0.0000	0.0034	0.0000	0.0107	0.0000	0.0000	0.0000	0.0080
PM10	tpy	0.0000	0.0031	0.0000	0.0016	0.0000	0.0050	0.0000	0.0000	0.0000	0.0037
PM25	tpy	0.0000	0.0004	0.0000	0.0002	0.0000	0.0007	0.0000	0.0000	0.0000	0.0005
Total											
PM	tpy	0.0000	0.0134	0.0000	0.0034	0.0000	0.0107	0.0000	0.0000	0.0000	0.0080
PM10	tpy	0.0000	0.0062	0.0000	0.0016	0.0000	0.0050	0.0000	0.0000	0.0000	0.0037
PM25	tpy	0.0000	0.0009	0.0000	0.0002	0.0000	0.0007	0.0000	0.0000	0.0000	0.0005

Note:

1. All emissions factors from Title V Permit

**PTE**

Parameter	Units	Bins									
Source ID		HF1	HF2	SD1	SD2	GC1	GC2	DC1	DC2	SH1	SH2
Location		SLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM
Material		Hog Fuel		Sawdust		Green Chips		Dry Chips		Shavings	
Loadings	bdt/tpy	25,577	30,070	11,633	13,178	70,102	39,186	5,086	6,674	8,226	15,344
<b>Emission Factors</b>											
Filling											
PM	#/bdt	0.00075	0.00075	0.00075	Cyclone C-2	0.00075	Cyclone C-3	0.0015	0.0015	Cyclone C-1	Cyclone C-4
PM10	#/bdt	0.00035	0.00035	0.00035	Cyclone C-2	0.00035	Cyclone C-3	0.0007	0.0007	Cyclone C-1	Cyclone C-4
PM25	#/bdt	0.00005	0.00005	0.00005	Cyclone C-2	0.00005	Cyclone C-3	0.0001	0.0001	Cyclone C-1	Cyclone C-4
Truck Loading											
PM	#/bdt	0.00075	0.00075	0.00075	0.00075	0.00075	0.00075	0.0015	0.0015	0.0015	0.0015
PM10	#/bdt	0.00035	0.00035	0.00035	0.00035	0.00035	0.00035	0.0007	0.0007	0.0007	0.0007
PM25	#/bdt	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.0001	0.0001	0.0001	0.0001
<b>Emissions</b>											
Filling											
PM	tpy	0.0096	0.0113	0.0044	Cyclone C-2	0.0263	Cyclone C-3	0.0038	0.0050	Cyclone C-1	Cyclone C-4
PM10	tpy	0.0045	0.0053	0.0020	Cyclone C-2	0.0123	Cyclone C-3	0.0018	0.0023	Cyclone C-1	Cyclone C-4
PM25	tpy	0.0006	0.0008	0.0003	Cyclone C-2	0.0018	Cyclone C-3	0.0003	0.0003	Cyclone C-1	Cyclone C-4
Truck Loading											
PM	tpy	0.0096	0.0113	0.0044	0.0049	0.0263	0.0147	0.0038	0.0050	0.0062	0.0115
PM10	tpy	0.0045	0.0053	0.0020	0.0023	0.0123	0.0069	0.0018	0.0023	0.0029	0.0054
PM25	tpy	0.0006	0.0008	0.0003	0.0003	0.0018	0.0010	0.0003	0.0003	0.0004	0.0008
Total											
PM	tpy	0.0192	0.0226	0.0087	0.0049	0.0526	0.0147	0.0076	0.0100	0.0062	0.0115
PM10	tpy	0.0090	0.0105	0.0041	0.0023	0.0245	0.0069	0.0036	0.0047	0.0029	0.0054
PM25	tpy	0.0013	0.0015	0.0006	0.0003	0.0035	0.0010	0.0005	0.0007	0.0004	0.0008

**Table 11**  
**Yakama Forest Products**  
**Miscellaneous Non-fugitive Activities**

**2019 Actual Emissions**

Parameter	Units	Sawing Inside Buildings		Total
		SLM	LLM	
Location				
<b>Loadings</b>	tpy Logs	0	194,832	
<b>Emission Factors</b>				
PM	#/tpy logs	0.35	0.35	
PM10	#/tpy logs	0.175	0.175	
PM25	#/tpy logs	0.0875	0.0875	
Control Efficiency		80%	80%	
<b>Emissions</b>				
PM	t/yr	0.0	6.8	6.8
PM10	t/yr	0.0	3.4	3.4
PM25	t/yr	0.0	1.7	1.7

Note:

1. All emissions factors from Title V Permit

**PTE**

Parameter	Units	Sawing Inside Buildings		Total
		SLM	LLM	
Location				
<b>Loadings</b>	tpy Logs	322,709	423,400	746,109
<b>Emission Factors</b>				
PM	#/tpy logs	0.35	0.35	
PM10	#/tpy logs	0.175	0.175	
PM25	#/tpy logs	0.0875	0.0875	
Control Efficiency		80%	80%	
<b>Emissions</b>				
PM	t/yr	11.3	14.8	26.1
PM10	t/yr	5.6	7.4	13.1
PM25	t/yr	2.8	3.7	6.5

Note:

1. All emissions factors from Title V Permit

**Table 12**  
**Yakama Forest Products**  
**Miscellaneous Fugitive Activities**

**2019 Actual Emissions**

Parameter Units		Sawing		Debarking		Conveyance to		Hog Fuel Handling Hog		Conveyance from		Wind Erosion		Total
		SLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM	
Location														
Loadings	tpy Logs		0 194,832		0 194,832									
	bd/yr					0	17,828	0	17,828	0	17,828			
	Acres											17	7	
<b>Emission Factors</b>														
PM	#/*	0.035	0.035	0.035	0.035	0.00075	0.00075	0.024	0.024	0.00075	0.00075	0.38	0.38	
PM10	#/*	0.0175	0.0175	0.0175	0.0175	0.00035	0.00035	0.012	0.012	0.00035	0.00035	0.190	0.190	
PM25	#/*	0.00875	0.00875	0.00875	0.00875	0.00005	0.00005	0.0060	0.0060	0.00005	0.00005	0.0950	0.0950	
Control Efficiency		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Emissions</b>														
PM	t/yr	0.0	3.4	0.0	3.4	0.0000	0.0067	0.0000	0.2139	0.0000	0.0067	0.0032	0.0013	7.1
PM10	t/yr	0.0	1.7	0.0	1.7	0.0000	0.0031	0.0000	0.1070	0.0000	0.0031	0.0016	0.0007	3.5
PM25	t/yr	0.0	0.9	0.0	0.9	0.0000	0.0004	0.0000	0.0535	0.0000	0.0004	0.0008	0.0003	1.8

Note:

1. All emissions factors from Title V Permit
2. Wind erosion area is only for unpave area.

**PTE**

Parameter Units		Sawing		Debarking		Conveyance to		Hog Fuel Handling Hog		Conveyance from		Wind Erosion		Total
		SLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM	SLM	LLM	
Location														
Loadings	tpy Logs	322,709	423,400	322,709	423,400									
	bd/yr					25,577	30,070	25,577	30,070	25,577	30,070			
	Acres											17	7	
<b>Emission Factors</b>														
PM	#/*	0.035	0.035	0.035	0.035	0.00075	0.00075	0.024	0.024	0.00075	0.00075	0.38	0.38	
PM10	#/*	0.0175	0.0175	0.0175	0.0175	0.00035	0.00035	0.012	0.012	0.00035	0.00035	0.190	0.190	
PM25	#/*	0.00875	0.00875	0.00875	0.00875	0.00005	0.00005	0.0060	0.0060	0.00005	0.00005	0.0950	0.0950	
Control Efficiency		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Emissions</b>														
PM	t/yr	5.6	7.4	5.6	7.4	0.0096	0.0113	0.3069	0.3608	0.0096	0.0113	0.0032	0.0013	26.8
PM10	t/yr	2.8	3.7	2.8	3.7	0.0045	0.0053	0.1535	0.1804	0.0045	0.0053	0.0016	0.0007	13.4
PM25	t/yr	1.4	1.9	1.4	1.9	0.0006	0.0008	0.0767	0.0902	0.0006	0.0008	0.0008	0.0003	6.7



**Table 13**  
**Yakama Forest Products**  
**Fugitive Dust Emissions Calculations**

Paved EF Values		Unpaved EF Values	
Particle Size (PM10)	0.016 #/VMT	Particle Size	2.6 #/VMT
Silt Loading	7.4 gm/m2	Silt Content	8.4 %
		Surface Moisture	0.2 %
		Precip Days	200 Days

(Site is watered down 130 days per year)

## Employee Vehicles and Product Pickup/Delivery (All paved roads)

Vehicle	Weight (pounds)	veh./ Days/yr	Trips/yr	Dist/RT (ft)	VMT/yr	EF (#/VMT)	PM10 (ton/yr)
Employee Vehicles	5,000	60	340	20,400	1,200	4,636	0.0285
Product Loadout	60,000	48	340	16,320	1,200	3,709	1.1843
						<b>Total PM10</b>	<b>2.26</b>

## Yard Equipment Inventory

		0.75		0.5		0.5		0.5										
Vehicle	Location	Maximum	Maximum	Average	Maximum	Average	Maximum	Vehicle	Average	Gross	Vehicle	Average	%	%	Annual	VMT	VMT	Hours
		Hours Per Day	Hours Per year	Hours per year	Vehicle Speed (mph)	Vehicle Speed (mph)	Gross Vehicle Weight (pounds)	Empty Weight (pounds)	Gross Weight Laden (pounds)	Paved	Unpaved	VMT	Paved	Unpaved	Unpaved			
Forklifts																		
H-360 HD	SM-3	18	4,320	3,240	4	2	41,200	20,600	30,900	100%	0%	6480	6480	0	0			
H-360 HD	PM-3	12	2,880	2,160	4	2	41,200	20,600	30,900	100%	0%	4320	4320	0	0			
H-360 HD	PM/KILN-3	16	3,840	2,880	4	2	41,200	20,600	30,900	100%	0%	5760	5760	0	0			
H-360 HD	KILN-	16	3,840	2,880	4	2	41,200	20,600	30,900	100%	0%	5760	5760	0	0			
H-280	SM-2	9	2,160	1,620	4	2	34,800	17,400	26,100	100%	0%	3240	3240	0	0			
H-280	PM-2	9	2,160	1,620	4	2	34,800	17,400	26,100	100%	0%	3240	3240	0	0			
H-190 HD	SHIPPING-3	12	2,880	2,160	4	2	26,300	13,150	19,725	100%	0%	4320	4320	0	0			
H-190 HD	SHIPPING-3	12	2,880	2,160	4	2	26,300	13,150	19,725	100%	0%	4320	4320	0	0			
H-190 HD	SHIPPING-3	12	2,880	2,160	4	2	26,300	13,150	19,725	100%	0%	4320	4320	0	0			
H-190 HD	PM-3	11	2,640	1,980	4	2	26,300	13,150	19,725	100%	0%	3960	3960	0	0			
H-190 HD	PM-3	11	2,640	1,980	4	2	26,300	13,150	19,725	100%	0%	3960	3960	0	0			
H-190	PM-2	9	2,160	1,620	3	2	26,300	13,150	19,725	100%	0%	2430	2430	0	0			
H-190	PM/SHIP-2	10	2,400	1,800	3	2	26,300	13,150	19,725	100%	0%	2700	2700	0	0			
H-190	SHIPPING-2	11	2,640	1,980	3	2	26,300	13,150	19,725	100%	0%	2970	2970	0	0			
H-155	SM-2	2	480	360	2	1	13,500	6,750	10,125	100%	0%	360	360	0	0			
LULL	SM-2	1	240	180	2	1	9,000	4,500	6,750	90%	10%	180	162	18	18			
TRACTOR	SM-2	3	720	540	1	1	7,500	3,750	5,625	90%	10%	270	243	27	54			
Yard Equipment																		
CAT 950	MERCH	9	2,160	1,620	6	3	42,520	21,260	31,890	99%	1%	4860	4,811	49	16.2			
CAT 950	MERCH	9	2,160	1,620	6	3	42,520	21,260	31,890	99%	1%	4860	4,811	49	16.2			
CAT 950	MERCH	9	2,160	1,620	6	3	42,520	21,260	31,890	99%	1%	4860	4,811	49	16.2			
JD-200	MERCH	9	2,160	1,620	1	1	50,000	25,000	37,500	99%	1%	810	802	8	16.2			
LETRO	P-2	9	2,160	1,620	3	2	90,000	45,000	67,500	1%	99%	2430	24	2,406	1603.8			
LETRO	P-2	9	2,160	1,620	3	2	90,000	45,000	67,500	15%	85%	2430	365	2,066	1377			
LETRO	P-3	18	4,320	3,240	5	3	140,000	70,000	105,000	99%	1%	8100	8,019	81	32.4			
LETRO	P-3	9	1,800	1,350	5	3	140,000	70,000	105,000	99%	1%	3375	3,341	34	13.5			
JD-744	P-2	9	1,800	1,350	3	2	51,920	25,960	38,940	1%	99%	2025	20	2,005	1336.5			
JD-744	P-2	9	1,800	1,350	3	2	51,920	25,960	38,940	1%	99%	2025	20	2,005	1336.5			
CAT 966	P-2	9	1,800	1,350	3	2	51,980	25,990	38,985	1%	99%	2025	20	2,005	1336.5			
CAT 966	P-3	9	1,800	1,350	7	4	52,720	26,360	39,540	99%	1%	4725	4,678	47	13.5			
CAT 966	P-3	9	1,800	1,350	7	4	52,720	26,360	39,540	99%	1%	4725	4,678	47	13.5			
HITACHI	P-2	9	1,800	1,350	1	1	81,000	40,500	60,750	99%	1%	675	668	7	13.5			
HITACHI	P-2	9	1,800	1,350	1	1	81,000	40,500	60,750	1%	99%	675	7	668	1336.5			
MADILL	P-3	9	1,800	1,350	1	1	99,800	49,900	74,850	99%	1%	675	668	7	13.5			
MADILL	P-3	9	1,800	1,350	1	1	99,800	49,900	74,850	1%	99%	675	7	668	1336.5			
WATER 1	P-2&3	8	1,040	780	10	5	49,860	24,930	37,395	50%	50%	3900	1,950	1,950	390			
WATER 2	P-2&3	8	1,040	780	10	5	52,180	26,090	39,135	50%	50%	3900	1,950	1,950	390			
WATER 3	P-2&3	8	1,040	780	10	5	51,920	25,960	38,940	50%	50%	3900	1,950	1,950	390			
Averages							51,059	25,529	38,294	Totals		120,240	102,146	18,094	11,070			
Average Vehicle Weight →							31,912			Average Unpaved Speed →		1.63						

## Notes:

## 1. Emission Factors from AP-42 Section 13.2

$$EF_{road} = k \left( \frac{SL}{2} \right)^{0.68} \left( \frac{W}{3} \right)^{1.5}$$

$$EF_{unpaved} = k \left( \frac{s}{12} \right)^{0.81} \left( \frac{W}{3} \right)^{0.4} \left( \frac{M}{0.2} \right)^{0.3} \left( \frac{S}{365 - P} \right)^{0.4}$$

where k = PM10 multiplier (#/yr), SL = Paved road silt loading (gm/m2),  
W = vehicle weight (tons), s = surface material silt content (%), M = soil moisture (%),  
S = speed (mph), and P = number of days of measurable precipitation.

Yard Emission Factor Calculation			
Variable	Units	Paved	Unpaved
k	#/VMT	0.016	2.8
SL	gm/m2	7.4	
W	tons	15.96	15.96
s	%		8.4
S	mph		1.63
M	%		0.2
P	Days		200
EF	#/VMT	0.46	0.84
Total miles	miles	120,240	102,146
Emissions	pounds	55,233	65,542

Total Fugitive Dust Emissions	
Yard Paved	55,233 Pounds
Yard Unpaved	65,542 Pounds
Employees	0.07 Pounds
Trucks	2.20 Pounds
<b>Total</b>	<b>120,777 Pounds</b>
	<b>60.39 tons</b>

Total Fugitive Dust Emissions	
Paved	55,236 Pounds
	27.62 Tons
Unpaved	65,542 Pounds
	32.77 Tons
<b>Total</b>	<b>120,777 Pounds</b>
	<b>60.39 Tons</b>

## Actual Emissions

Lumber Production (mbf/yr)	Baseline	135,988	ProRated Value	9.15	Paved
	Actual	45,376		10.86	Unpaved
	ProRate	33%		<b>20.02 Tons</b>	<b>Total</b>

## PTE

Lumber Production (mbf/yr)	Baseline	135,988	ProRated Value	109.96	Paved
	PTE	541,416		130.47	Unpaved
	ProRate	398%		<b>240.43 Tons</b>	<b>Total</b>

**Attachment 3**  
**Maximum Kiln Production Tables**

**YFP Max Production Rates****Summary**

YFP Production Model						EPA Pre-draft Inventory			
		Grand Fir	Douglas Fir	Pine			Grand Fir	Douglas Fir	Pine
Kiln Capacity									
SLM		88,815	80,618	61,879			88,753	79,038	49,398
LLM		116,527	116,393	77,184			116,392	116,392	115,263
Total		205,342	197,011	139,063			205,145	195,430	164,661
By-product		bdt/yr			MAX	Pre-Draft bdt/yr			
SLM	HF	25,577	24,264	15,521	25,577	4,118			
	SD	11,633	8,957	10,890	11,633	581			
	GC	70,102	52,268	62,171	70,102	21,735			
	SH	8,226	7,467	5,731	8,226	9,936			
	DC	5086	4626	3550	5,086	6,210			
LLM	HF	21,826	30,070	11,131	30,070	9,913			
	SD	6,684	7,987	13,178	13,178	1,398			
	GC	39,186	38,033	30,986	39,186	52,325			
	SH	11,653	11,369	15,344	15,344	23,920			
	DC	6674	6409	4430	6,674	14,950			

**Note: The LLM is constrained by steam generation capacity. SLM is constrained by Kiln Capacity.**

## EXCELL: EPA-MAX PRODUCTION-BY-PRODUCTS COMPARISON- JUN 2015

JUNE 23, 2015

Revised June 26 to add Dry Chip Volume

## MAXIMUM ANNUAL CAPACITY PRODUCTION VOLUME CALCULATIONS

DETERMINES THE MAXIMUM LUMBER VOLUMES AND BY-PRODUCTS GENERATION FOR POTENTIAL TO EMIT FOR THE YFP TITLE V PERMIT - 2015

## BECK MODEL RUN RESULTS FOR WHITE FIR - June 22, 2015

Note: The LLM is constrained by steam generation capacity. SLM is constrained by Kiln Capacity.

BASED ON MAXIMUM STEAM AND REASONABLE HOURS				Current EPA Permit
SPECIES:	LLM	SLM	TOTAL	Data
WHITE FIR				
MAX LUMBER VOLUME (mbm)	116,527	88,815	205,342	205,145
LOG VOL. USED (mbf)	74,000	54,863	128,863	
Overrun: (mbm/mbf)	1.57	1.62	1.59	
By Products:				

LOCATION	BY-PRODUCT NAME	BECK RUN BDU/yr	EPA BDT/yr
SLM	HF	21,314	25,577
SLM	SD	9,694	11,633
SLM	GC	58,418	70,102
SLM	SH	6,855	8,226
SLM	DC	4,238	5,086
LLM	HF	18,188	21,826
LLM	SD	5,570	6,684
LLM	GC	32,655	39,186
LLM	SH	9,711	11,653
LLM	DC	5,562	6,674

LEGEND:		
SMALL LOG MILL	SLM	
LARGE LOG MILL	LLM	
HOG FUEL	HF	
SAW DUST	SD	
GREEN CHIPS	GC	
SHAVINGS	SH	
Dry Chips	DC	
BONE DRY UNITS	BDU	
BONE DRY TONS	BDT	
BDU X 1.2 = BDT		

EXCELL: EPA-MAX PRODUCTION-BY-PRODUCTS COMPARISON- JUN 2015  
 Revised June 26 to add Dry Chip Volume

JUNE 23, 2015

**MAXIMUM ANNUAL CAPACITY PRODUCTION VOLUME CALCULATIONS**

**DETERMINES THE MAXIMUM LUMBER VOLUMES AND BY-PRODUCTS GENERATION FOR POTENTIAL TO EMIT FOR THE YFP TITLE V PERMIT - 2015**

**BECK MODEL RUN RESULTS FOR DOUGLAS FIR - June 22, 2015**

**Note: The LLM is constrained by steam generation capacity. SLM is constrained by Kiln Capacity.**

BASED ON MAXIMUM STEAM AND KILN HOURS				
			Current EPA Permit	
SPECIES:	LLM	SLM	TOTAL	Data
DOUGLAS FIR				
MAX LUMBER VOLUME (mbm)	116,393	80,618	197,011	195,430
LOG VOL. USED (mbf)	73,919	49,567	123,486	
Overrun: (mbm/mbf)	1.57	1.63	1.60	
By Products:				

	BY-PRODUCT	BECK RUN	EPA
LOCATION	NAME	BDU/yr	BDT/yr
SLM	HF	20,220	24,264
SLM	SD	7,464	8,957
SLM	GC	43,557	52,268
SLM	SH	6,223	7,467
SLM	DC	3,855	4,626
LLM	HF	25,058	30,070
LLM	SD	6,656	7,987
LLM	GC	31,694	38,033
LLM	SH	9,699	11,639
LLM	DC	5,341	6,409

LEGEND:		
SMALL LOG MILL	SLM	
LARGE LOG MILL	LLM	
HOG FUEL	HF	
SAW DUST	SD	
GREEN CHIPS	GC	
SHAVINGS	SH	
DRY CHIPS	DC	
BONE DRY UNITS	BDU	
BONE DRY TONS	BDT	
BDU X 1.2 = BDT		

EXCELL: EPA-MAX PRODUCTION-BY-PRODUCTS COMPARISON- JUN 2015

JUNE 23, 2015

Revised June 26 to add Dry Chip Volume

**MAXIMUM ANNUAL CAPACITY PRODUCTION VOLUME CALCULATIONS****DETERMINES THE MAXIMUM LUMBER VOLUMES AND BY-PRODUCTS GENERATION FOR POTENTIAL TO EMIT FOR THE YFP TITLE V PERMIT - 2015****BECK MODEL RUN RESULTS FOR PONDEROSA PINE - June 22, 2015****Note: The LLM is constrained by steam generation capacity. SLM is constrained by Kiln Capacity.**

BASED ON MAXIMUM STEAM AND KILN HOURS				
				Current EPA Permit
SPECIES:	LLM	SLM	TOTAL	Data
<b>PONDEROSA PINE</b>				
MAX LUMBER VOLUME (mbm)	77,184	61,879	139,063	164,661
LOG VOL. USED (mbf)	70,597	56,750	127,347	
Overrun: (mbm/mbf)	1.09	1.09	1.09	
By Products:				

	BY-PRODUCT	BECK RUN	EPA
LOCATION	NAME	BDU/yr	BDT/yr
SLM	HF	12,934	15,521
SLM	SD	9,075	10,890
SLM	GC	51,809	62,171
SLM	SH	4,776	5,731
SLM	DC	2,958	3,550
LLM	HF	9,276	11,131
LLM	SD	10,982	13,178
LLM	GC	25,822	30,986
LLM	SH	12,787	15,344
LLM	DC	3,692	4,430

<b>LEGEND:</b>		
SMALL LOG MILL	SLM	
LARGE LOG MILL	LLM	
HOG FUEL	HF	
SAW DUST	SD	
GREEN CHIPS	GC	
SHAVINGS	SH	
DRY CHIPS	DC	
BONE DRY UNITS	BDU	
BONE DRY TONS	BDT	
BDU X 1.2 = BDT		